# CDX-T67

# SERVICE MANUAL

**Ver 1.4 2002.07**

*US Model*
*Canadian Model*
*AEP Model*
*UK Model*
*E Model*

| | |
|---|---|
| Model Name Using Similar Mechanism | NEW |
| CD Drive Mechanism Type | MG-276A-159 |
| Optical Pick-up Name | KSS-720A |

## SPECIFICATIONS

System — Compact disc digital audio system
Frequency response — 10 – 20,000 Hz
Wow and flutter — Below the measurable limit
Signal-to-noise ratio — 93 dB
Outputs — BUS control output (8 pins)
Analog audio output (RCA pin)
Current drain — 800 mA (during CD playback)
800 mA (during loading or ejecting a disc)
Operating temperature — –10°C to +55°C
Dimensions — Approx. 234.4 × 60 × 159.5 mm (w/h/d) not incl. projecting parts and controls
Mass — Approx. 1.5 kg
Power requirement — 12 V DC car battery (negative earth)
Supplied accessories — Disc magazine (1)
Parts for installation and connections (1 set)

*Design and specifications subject to change without notice.*

## COMPACT DISC CHANGER

**9-870-272-15**
2002G0500-1
© 2002.07
**Sony Corporation**
**e Vehicle Company**
**Published by Sony Engineering Corporation**

SONY®

# SERVICING NOTES

## NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

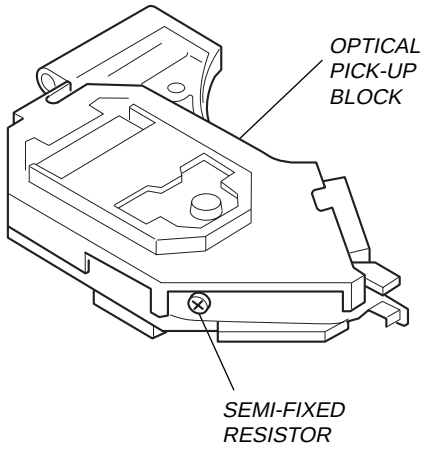
The laser diode in the optical pick-up block may suffer electrostatic breakdown because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body. During repair, pay attention to electrostatic breakdown and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

### NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

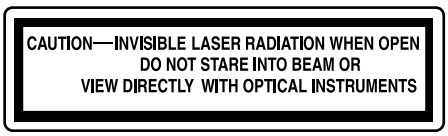
### US/Canadian model:

If the optical pick-up block is defective, please replace the whole optical pick-up block.
Never turn the semi-fixed resistor located at the side of optical pick-up block.




**AEP/UK model:**

The CLASS 1 LASER PRODUCT label is located on the rear exterior.




This label is located on the drive unit's internal chassis.

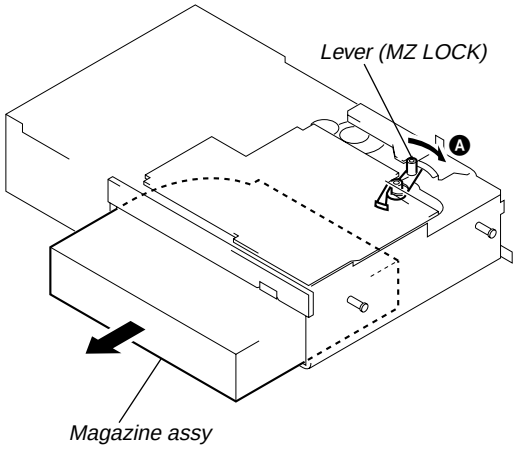
When replacing the chassis (U.S) sub assy of mechanism deck which have the "CAUTION LABEL" attached, please be sure to put a new CAUTION LABEL (3-223-913-11) to the chassis (U.S) sub assy.

## DISC MAGAZINE GETTING OUT PROCEDURE ON THE POWER SUPPLY IS OFF

Remove the CASE (LOWER. S) beforehand

1) Press the lever (MZ LOCK) in the direction of arrow Ⓐ.
2) Removal the magazine assy.

**Note:** Take out the magazine only when the tray is completely within the magazine. If the disk or tray is sticking out, turn on the power and eject the magazine.




CAUTION
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

### Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

### Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270 ˚C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

**SAFETY-RELATED COMPONENT WARNING!!**

**COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.**

**ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!**

**LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.**

This section is extracted from instruction manual.

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# SECTION 1
# GENERAL

## Inserting a disc / Insertion d'un disque / Einlegen von CDs / Een disc inbrengen / Inserimento di un disco

**1**

**With the arrow side facing up**
**Avec la partie fléchée tournée vers le haut**
**Mit dem Pfeil nach oben**
**Met het pijltje naar boven**
**Con il lato della freccia rivolto verso l'alto**

***Note***
***You cannot play an 8cm CD on this unit.***
***If you use the single adaptor, it may cause a malfunction.***
***Remarque***
***Il est impossible de lire un CD de 8 cm sur cet appareil.***
***Si vous utilisez l'adaptateur unique, il peut provoquer un dysfonctionnement.***
***Hinweis***
***Mit diesem Gerät können Sie keine Single-CDs (8-cm-CDs) wiedergeben lassen.***
***Wenn Sie einen Single-CD-Adapter verwenden, kann es zu Fehlfunktionen kommen.***

**Labeled surface up**
**Etiquette vers le haut**
**Mit der beschrifteten Seite nach oben**
**Etiket naar boven**
**Con l'etichetta rivolta verso l'alto**

**6 discs, one in each tray**
**6 disques, un par plateau**
**Insgesamt 6 CDs (eine in jedem Fach)**
**6 discs, één per lade**
**6 dischi, uno in ciascun comparto**

***Opmerking***
***U kunt geen 8 cm CD afspelen met dit toestel.***
***Door gebruik te maken van een single adapter kan het toestel defect raken.***
***Nota***
***Con il presente apparecchio, non è possibile riprodurre CD da 8cm.***
***Se viene utilizzato l'adattatore singolo, è possibile che si verifichino problemi di funzionamento.***

*Use the supplied disc magazine or the disc magazine XA-T7. The disc magazine XA-T6 can not be used with this unit. If you use any other magazine, it may cause a malfunction.*

*Utilisez le magasin à disques fourni ou un magasin à disques XA-T7. Vous ne pouvez pas utiliser de magasin à disques XA-T6 avec cet appareil. L'utilisation d'un autre type de magasin à disques risque de provoquer un dysfonctionnement.*

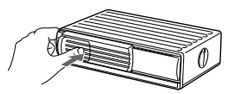
*Verwenden Sie das mitgelieferte CD-Magazin oder das CD-Magazin XA-T7. Das CD-Magazin XA-T6 kann nicht zusammen mit diesem Gerät eingesetzt werden. Wird ein anderes als das empfohlene CD-Magazin verwendet, kann es zu Fehlfunktionen kommen.*

*Gebruik het meegeleverde disc-magazijn of het disc-magazijn XA-T7. Het disc-magazijn XA-T6 kan niet met dit toestel worden gebruikt. Het gebruik van een ander magazijn kan defecten veroorzaken.*

*Utilizzare il contenitore dischi in dotazione o il contenitore dischi XA-T7. Il contenitore dischi XA-T6 non può essere utilizzato con questo apparecchio. Se si utilizza qualsiasi altro contenitore, potrebbero sorgere problemi di funzionamento.*

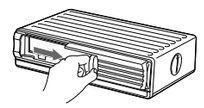
**2**

**Push the label printed "PUSH" to unlock the door.**
**Appuyez sur l'étiquette portant l'inscription "PUSH" pour déverrouiller la porte.**
**Drücken Sie auf die mit „PUSH" gekennzeichnete Stelle, um den Deckel zu entriegeln.**
**Druk op het label met de vermelding "PUSH" om de klep te ontgrendelen.**
**Per sbloccare il coperchio, premere in corrispondenza della dicitura "Push".**



***Note***
*To prevent injury, do not insert your hand in the CD changer.*
***Remarque***
*Pour éviter toute blessure, ne pas introduire la main dans le changeur de CD.*
***Hinweis***
*Um Verletzungen zu vermeiden, greifen Sie mit der Hand nicht in den CD-Wechsler.*

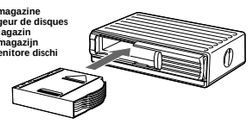
**Slide open**
**Coulissez pour ouvrir**
**Öffnen**
**Openschuiven**
**Aprire facendo scorrere lo sportello**



***Opmerking***
*Steek uw hand niet in de CD-wisselaar om verwondingen te voorkomen.*
***Nota***
*Per evitare danni alla persona, non inserire le mani nel cambia CD.*

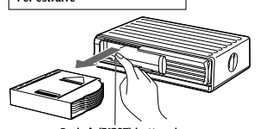
**3**

**Disc magazine**
**Chargeur de disques**
**CD-Magazin**
**Disc-magazijn**
**Contenitore dischi**



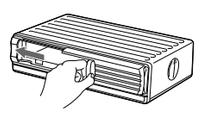
**If the disc magazine does not lock properly**
Take out the magazine, and after pressing the ⏏ (EJECT) button, reinsert it.
**Si vous ne pouvez pas fermer le chargeur de disques**
Sortez le chargeur et, après avoir appuyé sur la touche ⏏ (EJECT), réinsérez-le.
**Wenn sich das CD-Magazin nicht richtig verriegeln läßt**
Nehmen Sie das Magazin heraus, drücken Sie die ⏏ (EJECT)-Taste, und setzen Sie das Magazin dann wieder ein.
**Als het disc-magazijn niet soepel op zijn plaats vastklikt**
Verwijder het disc-magazijn, druk op de ⏏ (EJECT) toets en breng vervolgens het disc-magazijn opnieuw in.
**Se il contenitore dischi non si blocca in posizione correttamente**
Estrarlo e, dopo aver premuto il tasto ⏏ (EJECT), reinserirlo.

**To remove**
**Retrait**
**Herausnehmen des CD-Magazins**
**Verwijderen**
**Per estrarre**



**Push ⏏ (EJECT) button down**
**Appuyez sur la touche ⏏ (EJECT)**
**Drücken Sie die Taste ⏏ (EJECT) nach unten.**
**Druk de ⏏ (EJECT) knop in.**
**Premere il tasto ⏏ (EJECT).**

**4**



**Use the unit with the door closed completely**
Otherwise, foreign matter may enter the unit and contaminate the lenses inside the changer.
***Note***
*When a disc magazine is inserted into the CD changer or the reset button of the connected car audio is pressed, the unit will automatically be activated and read the information on the CDs. When the information on all the CDs in the disc magazine has been read, the unit will automatically stop operation.*

**Utilisez cet appareil avec la fenêtre complètement fermée**
Sinon, des corps étrangers pourraient pénétrer dans l'appareil et encrasser les lentilles dans le lecteur.
***Remarque***
*Quand un chargeur de disques est inséré dans le changeur de CD ou si la touche de réinitialisation de l'autoradio raccordé est enclenchée, l'appareil se met automatiquement en marche et reproduit les CD. Lorsque tous les CD du chargeur ont été reproduits, l'appareil s'arrête automatiquement.*

**Verwenden Sie das Gerät nur mit vollständig geschlossener Klappe**
Halten Sie die Klappe des Geräts stets geschlossen, damit keine Fremdkörper eindringen und die Linsen im Wechsler nicht verschmutzen können.
***Hinweis***
*Wenn Sie ein CD-Magazin in den CD-Wechsler einsetzen oder die Rücksetztaste an der angeschlossenen Audio-Anlage in Ihrem Auto drücken, schaltet sich das Gerät automatisch ein und beginnt, die Daten auf den CDs zu lesen. Nachdem die Informationen auf allen CDs im CD-Wechsler gelesen wurden, stoppt das Gerät automatisch.*

**Gebruik het toestel met volledig gesloten klep**
Anders zou er stof of vuil in het apparaat terecht kunnen komen, met als gevolg vervuilde lenzen en storingen in de werking.
***Opmerking***
*Wanneer een disc-magazijn in de compact disc-wisselaar wordt geplaatst of de terugsteltoets van de uitleesvenster-eenheid wordt ingedrukt, zal het apparaat automatisch ingeschakeld worden, waarna de informatie van de compact discs gelezen wordt. Nadat alle informatie gelezen is, zal het apparaat weer automatisch in de stopstand komen te staan.*

**Utilizzare l'apparecchio con lo sportello chiuso**
Diversamente oggetti estranei potrebbero penetrare nell'apparecchio e contaminare le lenti all'interno del cambia CD.
***Nota***
*Quando un contenitore dischi è inserito nel cambia CD o viene premuto il pulsante di azzeramento dell'autostereo collegato, l'apparecchio si accende automaticamente e legge le informazioni dei dischi. Quando le informazioni di tutti i dischi inseriti nel contenitore dischi sono state lette, l'apparecchio si ferma automaticamente .*

## Notes on the disc magazine / Remarques sur le chargeur de disques / Hinweise zum CD-Magazin / Opmerkingen betreffende het disc-magazijn / Note sul contenitore dischi

- Do not leave the disc magazine in locations with high temperatures and high humidity such as on a car dashboard or in the rear window where the disc magazine will be subjected to direct sunlight.
- Do not place more than one disc at a time onto one tray, otherwise the changer and the discs may be damaged.
- Do not drop the disc magazine or subject it to a violent shock.

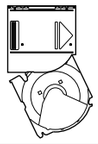
- Ne pas laisser le chargeur de disques dans un endroit très chaud ou très humide comme sur le tableau de bord ou sur la plage arrière d'une voiture où il serait en plein soleil.
- Ne pas insérer plus d'un disque à la fois sur le plateau, sinon le changeur et les disques risquent d'être endommagés.
- Ne pas laisser tomber le chargeur de disques ni le cogner.

- Halten Sie das Magazin von hohen Temperaturen und Feuchtigkeit fern. Lassen Sie es nicht auf dem Armaturenbrett, auf der Heckablage usw. liegen, wo es direktem Sonnenlicht ausgesetzt ist.
- Versuchen Sie nicht, mehr als eine CD in ein Fach einzulegen. Andernfalls können der Wechsler und die CDs beschädigt werden.
- Lassen Sie das Magazin nicht fallen, und schützen Sie es vor Stößen.

- Laat het magazijn niet achter op plaatsen waar dit blootgesteld wordt aan vocht of aan hoge temperaturen, zoals op het dashboard van een auto of op de hoedenplank, waar het magazijn in de volle zon staat.
- Steek niet meer dan één enkele disc in een uitsparing, anders kunnen zowel de CD-wisselaar als de compact discs beschadigd worden.
- Laat het apparaat niet vallen en stel het niet bloot aan hevige trillingen of schokken.

- Non lasciare il contenitore dischi in luoghi con temperature elevate o molto umidi, come sul cruscotto o sul ripiano posteriore di un'auto dove il contenitore potrebbe essere esposto alla luce solare diretta.
- Non inserire più di un disco alla volta in ciascun comparto, diversamente il cambia CD e i dischi saranno danneggiati.
- Non lasciar cadere il contenitore dischi e non sottoporlo a urti violenti.

## When the tray comes out / Lorsque le plateau sort / Wenn sich ein Fach gel st hat / Als de houder uitsteekt / Quando il comparto fuoriesce



Normally, the trays will not come out of the magazine. However, if they are pulled out of the magazine, it is easy to re-insert them.

**With the cut-away portion of the tray facing you, insert the right corner of the tray in the slot, then push in the left corner until it clicks.**

***Note***
*Do not insert the tray upside down or in the wrong direction.*

Normalement, les plateaux ne sortent pas du chargeur. Toutefois, s'ils sortent du chargeur, il est facile de les réinsérer.

**Avec la portion découpée du plateau vous faisant face, insérer le coin droit du plateau dans la fente, puis enfoncer le coin gauche jusqu'au déclic.**

***Remarque***
*Ne pas insérer le plateau à l'envers ou dans le mauvais sens.*

Normalerweise können sich die Fächer nicht vom Magazin lösen. Werden sie jedoch aus dem Magazin herausgezogen, lassen sie sich mühelos wieder anbringen.

**Hierbei muß die Aussparung des Fachs auf Sie weisen. Setzen Sie dann die rechte Ecke des Fachs in den Einschub ein, und drücken Sie danach die linke Ecke an, bis das Fach mit einem Klicken einrastet.**

***Hinweis***
*Versuchen Sie nicht, das Fach mit der falschen Seite nach oben oder verkehrt herum einzusetzen.*

Normaal worden de houders niet uit het magazijn. Als ze er toch zouden zijn uitgetrokken, kan u ze er makkelijk weer insteken.

**Met de uitsparing in de houder naar u toe gericht, brengt u de rechterhoek van de houder in de gleuf en drukt dan de linkerhoek erin tot u een klik hoort.**

***Opmerking***
*De houder niet omgekeerd of in de verkeerde richting inbrengen.*

Di solito, i comparti non fuoriescono dal contenitore; se ciò dovesse avvenire, è facile reinserirli.

**Con la parte del comparto tagliata rivolta in avanti, inserire l'angolo destro del comparto nell'alloggiamento, quindi inserire l'angolo sinistro fino a farlo scattare in posizione.**

***Nota***
*Non inserire il vassoio capovolto o nella direzione errata.*

## Notes on handling discs / Remarques sur la manipulation des disques / Hinweise zum Umgang mit CDs / Opmerkingen bij het omgaan met discs / Note sulla manipolazione dei dischi

A dirty or defective disc may cause sound drop-outs during playback. To enjoy optimum sound, handle the disc as follows.

- **Handle the disc by its edge, and to keep the disc clean, do not touch the unlabeled surface. (fig. A)**
- **Do not stick paper or tape on the disc. (fig. B)**
- **Keep your discs in their cases or disc magazines when not in use. Do not expose discs to direct sunlight or heat sources such as hot air-ducts. Do not leave discs in a car parked in direct sunlight where there can be a considerable rise in the temperature inside the car. (fig. C)**
- **Before playing, clean the discs with a commercially available cleaning cloth. Wipe each disc from the centre out. (fig. D)**
  Do not use solvents such as benzine, thinner, commercially available cleaners, or antistatic spray intended for analog discs.
- **Discs with non-standard shapes (e.g., heart, square, star) cannot be played on this unit. Attempting to do so may damage the unit. Do not use such discs.**
- **You cannot play 8cm CDs.**

### Notes on discs

If you use the discs explained below, the sticky residue can cause the disc to stop spinning and may cause malfunction or ruin your discs.
Do not use second-hand or rental CDs that have a sticky residue on the surface (for example from peeled-off stickers or from ink, or glue leaking from under the stickers).

- **There are paste residue. Ink is sticky. (fig. E)**
  Do not use rental CDs with old labels that are beginning to peel off.
- **Stickers that are beginning to peel away, leaving a sticky residue. (fig. F)**
  Do not use your discs with labels or stickers attached.
- **Labels are attached. (fig. G)**

### Notes on CD-R/CD-RW discs

- **You can play CD-Rs (recordable CDs) designed for audio use on this unit. (fig. H)**
- **Some CD-Rs (depending on the equipment used for its recording or the condition of the disc) may not play on this unit.**
- **You cannot play a CD-R that is not finalized*.**
- **You cannot play CD-RWs (rewritable CDs) on this unit.**

* *A process necessary for a recorded CD-R disc to be played on the audio CD player.*

- **Manipuler le disque par son arête et le maintenir dans un état propre, ne pas le toucher sur la surface non imprimée. (fig. A)**
- **Ne pas coller de papier ou de bande adhésive sur le disque. (fig. B)**
- **Conservez vos disques dans leurs boîtiers ou des pochettes de rangement lorsqu'ils ne sont pas utilisés.**
  **Ne pas laisser les disques en plein soleil ou près d'une source de chaleur comme des conduits d'air chaud. Ne pas laisser les disques dans une voiture garée en plein soleil car la température de l'habitacle risque d'augmenter considérablement. (fig. C)**
- **Avant la lecture, nettoyez les disques avec un chiffon de nettoyage disponible dans le commerce. Essuyez chaque disque en partant du centre vers l'extérieur. (fig. D)**
  N'utilisez pas de solvants tels que la benzine, du diluant, des produits de nettoyage vendus dans le commerce ou des sprays antistatiques destinés aux disques analogiques.
- **Les disques de formes non standard (par exemple en forme de cœur, de carré ou d'étoile) ne peuvent pas être lus sur cet appareil. Vous risquez d'endommager votre appareil si vous essayez de le faire. N'utilisez pas de tels disques.**
- **La lecture de CD de 8 cm n'est pas possible.**

### Remarques sur les disques

Si vous utilisez les disques décrits ci-dessous, le résidu adhésif risque de provoquer l'arrêt de la rotation du disque et d'entraîner un dysfonctionnement ou d'endommager vos disques.
N'utilisez pas de CD de seconde main ou de location qui présentent des résidus adhésifs à la surface (par exemple d'étiquettes décollées ou d'encre, de colle dépassant de l'étiquette).

- **Résidus de colle. L'encre colle. (fig. E)**
  N'utilisez pas de CD de location avec d'anciennes étiquettes qui commencent à se décoller.
- **Les étiquettes qui commencent à se décoller laissent des résidus adhésifs. (fig. F)**
  N'utilisez pas vos disques avec des étiquettes ou des autocollants apposés dessus.
- **Les étiquettes sont fixées. (fig. G)**

### Remarques sur les disques CD-R/CD-RW

- **Vous pouvez écouter avec cet appareil des CD-R (CD enregistrables) conçus pour une utilisation audio. (fig. H)**
- **Certains CD-R (en fonction des conditions de l'équipement d'enregistrement ou du disque) risquent de ne pas être lus avec cet appareil.**
- **Vous ne pouvez pas lire de disques CD-R non finalisés*.**
- **Vous ne pouvez pas lire de CD-RW (CD réinscriptibles) avec cet appareil.**

* *Un processus nécessaire à la lecture des disques CD-R enregistrés sur le lecteur de CD audio.*

- **Damit die CD sauber bleibt, fassen Sie sie immer am Rand an, und berühren Sie nicht die Seite ohne Beschriftung. (Abb. A)**
- **Kleben Sie weder Papier noch Klebeband auf die CD. (Abb. B)**
- **Bewahren Sie CDs in ihrer Hülle oder in den CD-Magazinen auf, wenn sie nicht abgespielt werden.**
  **Schützen Sie die CD vor Sonnenlicht und Wärmequellen wie Warmluftauslässen. Lassen Sie sie nicht in einem Auto liegen, das direkt in der Sonne geparkt ist, da die Temperatur im Wageninneren sehr hoch ansteigen kann. (Abb. C)**
- **Reinigen Sie die CDs vor dem Abspielen mit einem handelsüblichen Reinigungstuch. Wischen Sie dabei von der Mitte nach außen. (Abb. D)**
  Verwenden Sie keine Lösungsmittel wie Benzin oder Verdünner und keine handelsüblichen Reinigungsmittel oder Antistatik-Sprays für Schallplatten.
- **CDs mit ungewöhnlichen Formen, zum Beispiel herz- oder sternförmige oder quadratische CDs, können Sie mit diesem Gerät nicht abspielen. Falls Sie es doch versuchen, kann das Gerät beschädigt werden. Verwenden Sie solche CDs nicht.**
- **Single-CDs (8-cm-CDs) können nicht wiedergegeben werden.**

### Hinweise zu CDs

Wenn Sie die unten aufgeführten CDs verwenden, können Klebstoffrückstände dazu führen, daß die CD sich nicht mehr dreht, oder Fehlfunktionen oder Schäden an der CD verursachen.
Verwenden Sie keine gebraucht gekauften oder Leih-CDs mit klebrigen Rückständen auf der Oberfläche (z. B. von abgelösten Aufklebern, von Tinte oder von Klebstoff, der unter den Aufklebern hervorquillt).

- **Klebstoffrückstände. Tinte klebt. (Abb. E)**
  Verwenden Sie keine Leih-CDs mit alten Etiketten, die sich abzulösen beginnen.
- **Aufkleber, die sich zu lösen beginnen und Klebstoffrückstände hinterlassen. (Abb. F)**
  Verwenden Sie keine CDs, an denen Etiketten oder Aufkleber angebracht sind.
- **Angebrachte Etiketten. (Abb. G)**

### Hinweise zu CD-Rs/CD-RWs

- **Mit diesem Gerät können Sie CD-Rs (beschreibbare CDs) wiedergeben lassen, die für den Einsatz als Tondatenträger konzipiert sind. (Abb. H)**
- **Je nach dem Aufnahmegerät, mit dem die CD-R bespielt wurde, oder dem Zustand der CD-R selbst können einige CD-Rs mit diesem Gerät möglicherweise nicht wiedergegeben werden.**
- **Eine noch nicht abgeschlossene CD-R kann nicht wiedergegeben werden*.**
- **Eine CD-RW (wiederbeschreibbare CD) kann mit diesem Gerät nicht wiedergegeben werden.**

* *Damit eine bespielte CD-R auf einem Audio-CD-Player wiedergegeben werden kann, ist ein spezieller Prozeß erforderlich.*

- **Pak een compact disc altijd bij de rand vast, houd hem proper en raak het oppervlak (behalve het label) niet aan. (afb. A)**
- **Plak geen papier of plakband op een compact disc. (afb. B)**
- **Bewaar uw discs in hun doosje of disc-magazijn wanneer u ze niet gebruikt.**
  **Stel compact discs niet bloot aan direkt zonlicht of warmeluchtkanalen. Laat ze niet liggen in een geparkeerde auto in de volle zon, aangezien de temperatuur hierin bijzonder hoog kan oplopen. (afb. C)**
- **Maak een disc voor het afspelen altijd schoon met een in de handel verkrijgbare doek. Wrijf van binnen naar buiten toe. (afb. D)**
  Gebruik geen solventen zoals benzine, thinner en in de handel verkrijgbare reinigingsmiddelen of antistatische sprays voor grammofoonplaten.
- **Discs met afwijkende vormen (b.v. hart, vierkant, ster) kunnen niet met deze dit toestel worden afgespeeld. Indien u dat toch doet, kan het toestel worden beschadigd. Gebruik geen dergelijke discs.**
- **U kunt geen 8cm CD's afspelen.**

### Opmerkingen bij discs

Indien u de discs behandelt zoals hieronder beschreven, kunnen kleverige resten de disc doen stoppen waardoor het toestel defect of uw discs beschadigd kunnen raken.
Gebruik geen gebruikte of gehuurde CD's met kleverig oppervlak (bijvoorbeeld afkomstig van stickers of inkt of lijm die van onder de stickers komt).

- **Lijmresten. Kleverige inkt. (afb. E)**
  Gebruik geen gehuurde CD's met oude labels die loskomen.
- **Stickers die loskomen laten kleverige resten achter. (afb. F)**
  Gebruik geen discs waarop stickers zijn gekleefd.
- **Vastgekleefde labels. (afb. G)**

### Opmerkingen bij CD-R/CD-RW discs

- **Audio CD-R's (opneembare CD's) kunnen met dit toestel worden afgespeeld. (fig. H)**
- **Sommige CD-R's (afhankelijk van de opname-apparatuur of de staat van de disc) kunnen niet met dit toestel worden afgespeeld.**
- **U kunt geen CD-R afspelen die niet is gefinaliseerd*.**
- **Met dit toestel kunnen geen CD-RW's (herschrijfbare CD's) worden afgespeeld.**

* *Proces dat nodig is om een opgenomen CD-R disc af te spelen met een CD-speler.*

- **Non lasciare il contenitore dischi in luoghi con temperature elevate o molto umidi, come sul cruscotto o sul ripiano posteriore di un'auto dove il contenitore potrebbe essere esposto alla luce solare diretta.**
- **Non inserire più di un disco alla volta in ciascun comparto, diversamente il cambia CD e i dischi saranno danneggiati.**
- **Non lasciar cadere il contenitore dischi e non sottoporlo a urti violenti.**

### Note sui dischi

I residui di colla presenti sui dischi indicati di seguito potrebbero causare l'arresto del disco stesso e problemi di funzionamento dell'apparecchio o danneggiare i dischi stessi.
Non utilizzare dischi di seconda mano o presi a noleggio che presentano residui di colla sulla superficie, ad esempio residui di etichette o inchiostro rimossi oppure residui di colla che fuoriescono dalle etichette.

- **Residui di colla. Residui di inchiostro. (fig. E)**
  Non utilizzare dischi presi a noleggio con etichette vecchie che cominciano a staccarsi.
- **Etichette che cominciano a staccarsi, lasciando residui di colla. (fig. F)**
  Non utilizzare dischi su cui siano applicati etichette o adesivi.
- **Etichette applicate. (fig. G)**

### Note sui CD-R/CD-RW

- **Con il presente apparecchio è possibile riprodurre CD-R (CD registrabili) progettati per l'utilizzo audio. (fig. H)**
- **In base alle condizioni dell'apparecchio di registrazione o del CD-R stesso, alcuni CD-R potrebbero non essere riprodotti su questo apparecchio.**
- **Non è possibile riprodurre CD-R non finalizzati*.**
- **Con il presente apparecchio è possibile riprodurre CD-RW (CD riscrivibili).**

* *Operazione necessaria per la riproduzione di un CD-R registrato su lettore CD audio.*

**A**

**This way**
**Oui**
**Richtig**
**Juist**
**Così**

**B**

**Not this way**
**Non**
**Falsch**
**Fout**
**Non così**

**C**

**Not this way**
**Non**
**Falsch**
**Fout**
**Non così**

**D**

**This way**
**Oui**
**Richtig**
**Juist**
**Così**

**E**

**F**

**G**

**H**

**Look for this mark to distinguish CD-Rs for audio use.**
**Ce symbole permet de distinguer les CD-R conçus pour une utilisation audio.**
**Für den Einsatz als Tondatenträger konzipierte CD-Rs sind mit dieser Markierung gekennzeichnet.**
**Audio CD-R's zijn hieraan te herkennen.**
**Ricercare questo simbolo per distinguere i CD-R per utilizzo audio.**

COMPACT disc DIGITAL AUDIO Recordable

**This mark denotes that a disc is not for audio use.**
**Ce symbole indique qu'un disque n'est pas conçu pour une utilisation audio.**
**Nicht für den Einsatz als Tondatenträger geeignete CD-Rs sind mit dieser Markierung gekennzeichnet.**
**Dit geeft aan dat een disc niet geschikt is voor audiotoepassingen.**
**Questo simbolo indica che il disco non è destinato all'utilizzo audio.**

COMPACT disc Recordable

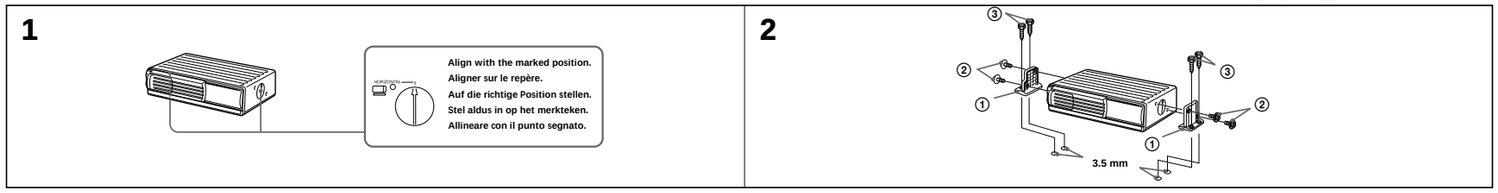
# Installation

## Precautions

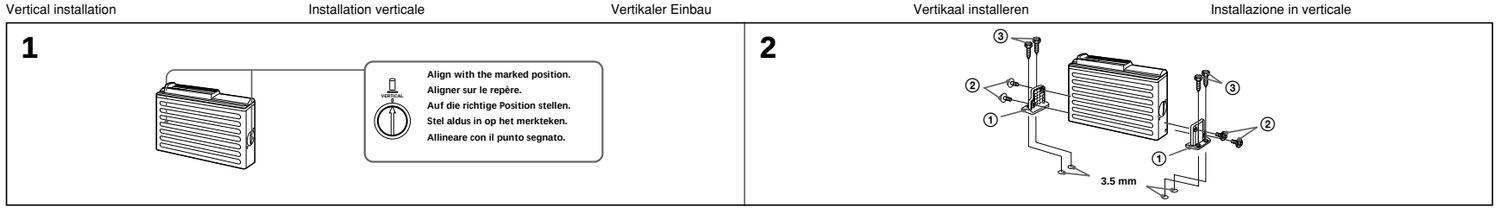
- Choose the mounting location carefully, observing the following:
  - The unit is not subject to temperatures exceeding 55°C (such as in a car parked in direct sunlight).
  - The unit is not subject to direct sunlight.
  - The unit is not near heat sources (such as heaters).
  - The unit is not exposed to rain or moisture.
  - The unit is not exposed to excessive dust or dirt.
  - The unit is not subject to excessive vibration.
  - The fuel tank should not be damaged by the tapping screws.
  - There should be no wire harnesses or pipes under the place where you are going to install the unit.
  - The spare tire, tools or other equipment in or under the trunk should not be interfered with or damaged by the screws or the unit itself.
- Be sure to use only the supplied mounting hardware for a safe and secure installation.
- Use only the supplied screws.
- Make holes of ø 3.5 mm only after making sure there is nothing on the other side of the mounting surface.

## How to install the unit

Horizontal installation



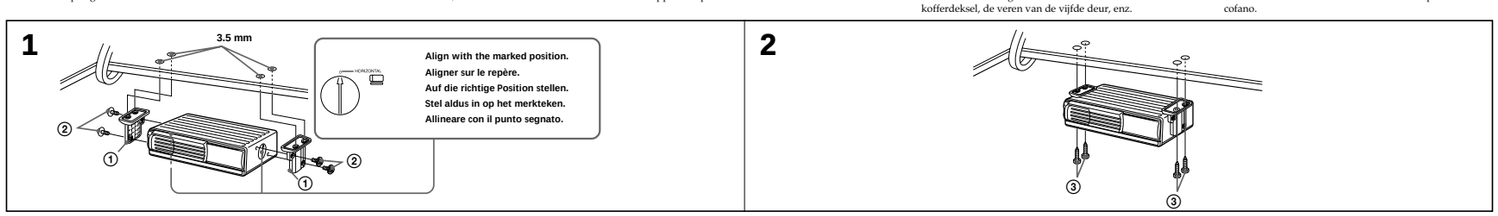

Vertical installation




## Suspended installation

When the unit is to be installed under the rear tray etc. in the trunk compartment, make sure the following provisions are made.

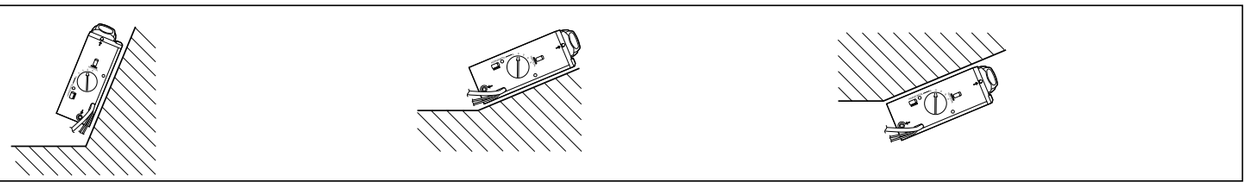
- Choose the mounting location carefully so that the unit can be installed horizontally.
- Make sure the unit does not hinder the movement of the torsion bar spring etc. of the trunk lid.




## Inclined installation

After installing the unit, align the dials with one of the marks so that the arrows are as vertical as possible.

***Note***
*Be sure to align the left and right dials with the same mark.*



# Installation

## Pr cautions

- Choisissez l'emplacement de montage en tenant compte des observations suivantes :
  - L'appareil ne doit pas être exposé à des températures supérieures à 55°C (comme dans une voiture garée en plein soleil).
  - L'appareil ne doit pas être utilisé en plein soleil.
  - L'appareil ne doit pas être utilisé près d'une source de chaleur (comme un chauffage).
  - L'appareil ne doit pas être utilisé dans un endroit exposé à la pluie ou à l'humidité.
  - L'appareil ne doit pas être utilisé dans un endroitpoussiéreux ou sale.
  - L'appareil ne doit pas être exposé à des vibrations excessives.
  - Vérifiez que le réservoir d'essence ne risque pas d'être endommagé par les vis taraudeuses.
  - Il ne doit pas y avoir de faisceau de fils ou de tuyaux à l'emplacement du montage.
  - Vérifiez que l'appareil ou les vis ne risquent pas d'endommager ou de gêner la roue de secours, les outils, ou tout autre objet dans le coffre.
- Pour garantir la sécurité de l'installation, utiliser uniquement le matériel de montage fourni.
- Utilisez uniquement les vis fournies.
- Ne percez les trous de 3,5 mm de diamètre qu'après vous être assuré qu'il n'y avait rien de l'autre côté de la surface de montage.

## Installation de l appareil

Installation horizontale




Installation verticale




## Installation suspendue

Si l'appareil doit être installé sous la plage arrière dans le coffre par exemple, observer les précautions suivantes.

- Choisissez l'emplacement pour pouvoir installer l'appareil à l'horizontale.
- Vérifiez que l'appareil ne gêne pas les mouvements du ressort de fermeture du coffre, entre autres.




## Installation inclin e

Après avoir installé l'appareil, alignez le disque sur l'un des repères afin que la flèche soit aussi proche que possible de la position verticale.

***Remarque***
*Veillez à aligner les disques gauche et droite sur le même repère.*



# Installation

## Sicherheitsma nahmen

- Bei der Wahl des Einbauortes ist folgendes zu beachten:
  - Das Gerät darf keinen Temperaturen über 55 °C ausgesetzt sein, wie sie z. B. in einem in der Sonne geparkten Fahrzeug auftreten können.
  - Das Gerät darf keiner direkten Sonneneinstrahlung ausgesetzt sein.
  - Das Gerät muß von Wärmequellen (z. B. der Heizung) ferngehalten werden.
  - Das Gerät darf weder Regen noch Feuchtigkeit ausgesetzt sein.
  - Das Gerät darf keinem übermäßigen Staub oder anderer Verschmutzung ausgesetzt sein.
  - Das Gerät darf keinen übermäßigen Vibrationen ausgesetzt sein.
  - Der Tank darf durch die Schneidschrauben nicht beschädigt werden.
  - Unter der Fläche, auf die das Gerät montiert werden soll, dürfen sich keine Kabelbäume oder Leitungen befinden.
  - Ersatzreifen, Werkzeug usw. im oder unter dem Kofferraum dürfen durch die Schneidschrauben nicht beschädigt werden. Achten Sie auch darauf, daß die Herausnahme des Ersatzreifens, Werkzeugs usw. nicht durch das Gerät behindert wird.
- Für sicheren und stabilen Einbau verwenden Sie ausschließlich die mitgelieferten Befestigungsteile.
- Verwenden Sie ausschließlich die mitgelieferten Schrauben.
- Bohren Sie die Löcher mit einem Durchmesser von 3,5 mm erst, wenn Sie sich vergewissert haben, daß sich nichts auf der Rückseite der Montagefläche befindet.

## Installation des Ger tes

Horizontaler Einbau




Vertikaler Einbau




## H ngender Einbau

Bei hängender Installation unter der Heckablage usw. im Kofferraum beachten Sie folgende Vorsichtsmaßnahmen:

- Wählen Sie den Befestigungsort sorgfältig so aus, daß das Gerät horizontal montiert werden kann.
- Achten Sie darauf, daß das Gerät die Heckklappendämpfer usw. nicht behindert.




## Installation in geneigter Position

Nach dem Installieren des Geräts richten Sie die Dial-Ringe an einer der Markierungen aus, so daß der Pfeil möglichst senkrecht steht.

***Hinweis***
*Achten Sie darauf, den linken und rechten Dial-Ring an derselben Markierung auszurichten.*



# Installeren

## Voorzorgsmaatregelen

- Kies de plaats van opstelling met zorg, zodat het toestel niet:
  - Onderhevig is aan temperaturen boven de 55°C (zoals in een auto geparkeerd in de volle zon).
  - Steeds blootgesteld wordt aan direkt zonlicht.
  - Te dicht bij een warmtebron komt (zoals een autoverwarming).
  - Nat kan worden, door regen, vocht of opspattend water.
  - In kontakt komt met veel stof of vuil.
  - Onderhevig is aan sterke trillingen of schokken.
  - Let op dat de plaatschroeven de benzinetank niet beschadigen.
  - Kontroleer of onder de plaats waar u het apparaat wilt monteren geen bedrading of leidingen lopen.
  - Houd bij het monteren rekening met het reservewiel, gereedschappen en-eventueel in de kofferruimte aanwezige andere apparaten, zodat deze de compact disc wisselaar niet in de weg zitten, noch beschadigd kunnen worden door de montageschroeven van de laatste.
- In het belang van een veilige en stevige montage dient u uitsluitend het bijgeleverde montagemateriaal te gebruiken.
- Gebruik enkel de meegeleverde schroeven.
- Controleer of er niets achter het bevestigingsvlak zit en maak pas dan gaten van 3,5 mm diameter.

## Installatie van het apparaat

Horizontaal installeren




Vertikaal installeren




## Hangend installeren

Als u het apparaat onder de hoedenplank of iets dergelijks wilt installeren, let dan op de volgende punten:

- Kies een geschikte plek waar u het apparaat horizontaal kunt ophangen.
- Vergewis u ervan dat het apparaat niet beschadigd kan worden door bewegende onderdelen zoals een kofferdeksel, de veren van de vijfde deur, enz.




## Niet-horizontale plaatsing

Zodra de eenheid geplaatst is, draait u de ringen op een stand waarbij de pijl zoveel mogelijk in een vertikale positie staat.

***Opmerking***
*Zet de linker-en de rechterring op dezelfde stand.*



# Installazione

## Precauzioni

- Scegliere con cura il luogo di installazione, seguendo le istruzioni riportate di seguito ed evitando di installare l'apparecchio in luoghi:
  - Soggetti a temperature oltre i 55°C (come in un'auto parcheggiata al sole).
  - Esposti alla luce solare diretta.
  - Vicini a fonti di calore (come impianti di riscaldamento).
  - Esposti alla pioggia o all'umidità.
  - Esposti a polvere o sporco eccessivi.
  - Soggetti a vibrazioni eccessive.
  - Il serbatoio del carburante non deve essere danneggiato dalle viti filettanti.
  - Non devono essere presenti né cavi né tubi sotto il luogo scelto per l'installazione dell'apparecchio.
  - Le viti e l'apparecchio stesso non devono interferire con, o danneggiare, la ruota di scorta, gli attrezzi o altri dispositivi presenti dentro o sotto il bagagliaio.
- Assicurarsi di usare solo il materiale di montaggio in dotazione per un'installazione stabile e sicura.
- Utilizzare solo le viti in dotazione.
- Assicurarsi che non vi sia nulla sull'altro lato della superficie di montaggio, quindi effettuare fori di solo 3,5 mm di diametro.

## Installazione dell apparecchio

Installazione in orizzontale




Installazione in verticale




## Installazione in sospensione

Se l'apparecchio deve essere installato sotto il ripiano posteriore, nel bagagliaio, ecc., assicurarsi di prendere le seguenti precauzioni:

- Scegliere con attenzione il luogo di montaggio in modo che l'apparecchio possa essere installato orizzontalmente.
- Assicurarsi che l'apparecchio non ostacoli il movimento della molla della barra di torsione ecc. del coperchio del cofano.




## Installazione in posizione inclinata

Dopo aver installato l'apparecchio, allineare le manopole ad una delle tacche in modo che la freccia sia il più verticale possibile.

***Nota***
*Accertarsi di allineare le manopole di sinistra e di destra alla stessa tacca.*



# Connections/Connexions/ Anschlu /Aansluitingen/ Collegamenti

For details, refer to the Installation/Connections manual of each product.

Pour plus de d tails, consulter le manuel d installation/connexions de chaque produit.

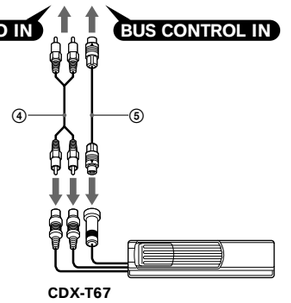
Einzelheiten entnehmen Sie der Installations-/Anschlu anleitung des betreffenden Ger ts.

Zie voor nadere bijzonderheden de gebruiksaanwijzing voor installatie en aansluitingen van de aan te sluiten apparatuur.

Per i dettagli, fare riferimento al manuale di installazione/collegamenti dell autoradio.

Connection diagram/Sch ma de connexion/Anschlu diagramm/ Aansluitingsschema/Schema di collegamento

**To the car audio (the master unit) compatible with the Sony Bus or the source selector**
**Vers le système audio voiture (appareil principal) compatible avec le bus Sony ou le sélecteur de source.**
**an Autoanlage (Hauptgerät), die mit dem Sony-Bus oder dem Signalquellenwähler kompatibel ist**
**Op het car audiosysteem (hoofdtoestel) dat compatibel is met Sony Bus of de bronkeuzeschakelaar**
**All'autoradio (unità principale) compatibile con bus Sony o con il selettore di sorgente.**




***Note***
*For connecting two or more changers, the XA-C30 source selector (optional) is necessary.*

***Remarque***
*Pour raccorder deux ou plusieurs changeurs, le sélecteur de source XA-C30 (en option) est nécessaire.*

***Hinweis***
*Zum Anschließen von zwei oder mehr Wechslern wird der gesondert erhältliche Signalquellenwähler XA-C30 benötigt.*

***Opmerking***
*Om twee of meer wisselaars aan te sluiten is de optionele geluidsbronkiezer XA-C30 vereist.*

***Nota***
*Per collegare uno o più cambia CD, è necessario il selettore di fonte XA-C30 (opzionale).*

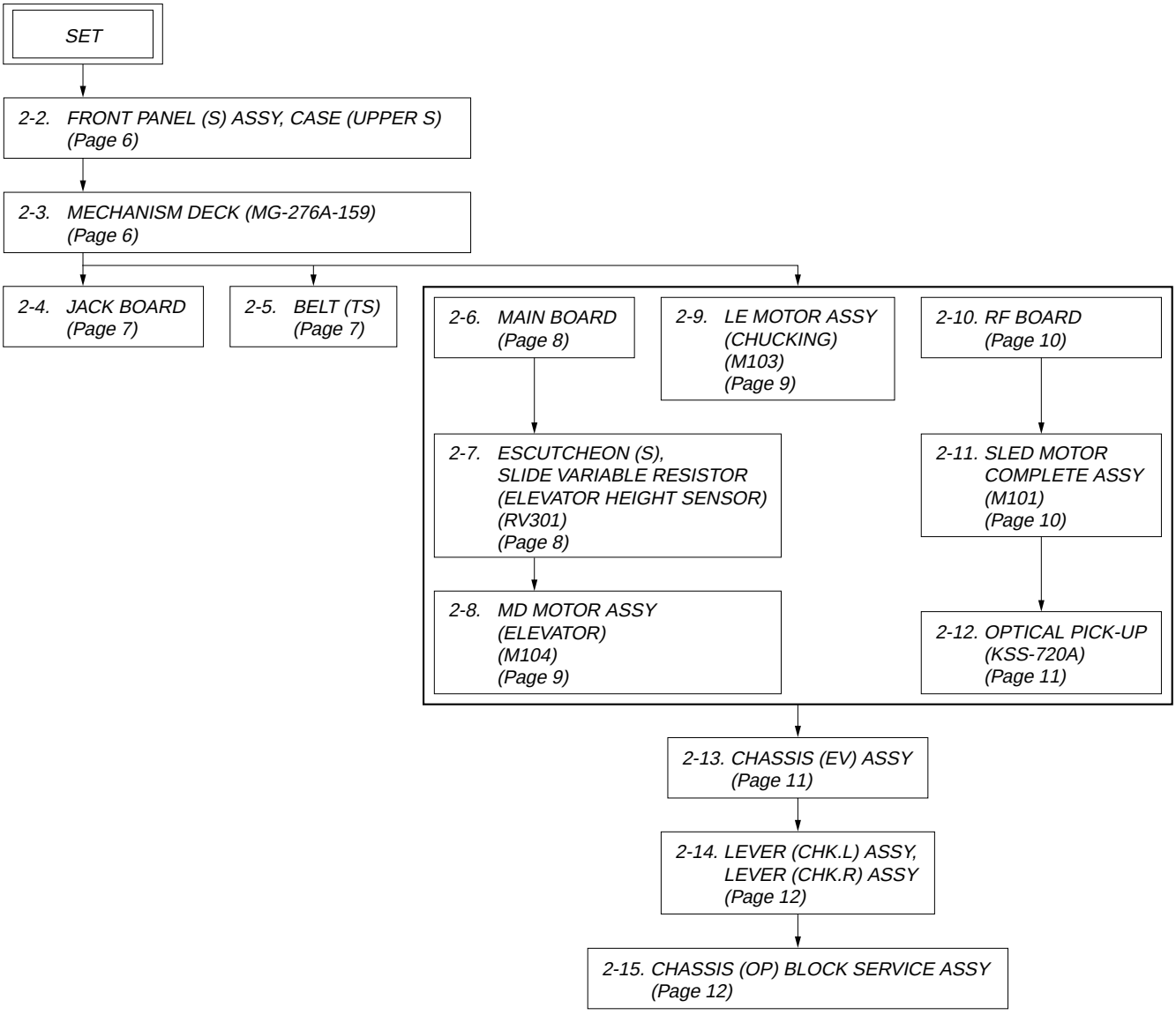
# SECTION 2
# DISASSEMBLY

• This set can be disassembled in the order shown below.

## 2-1. DISASSEMBLY FLOW

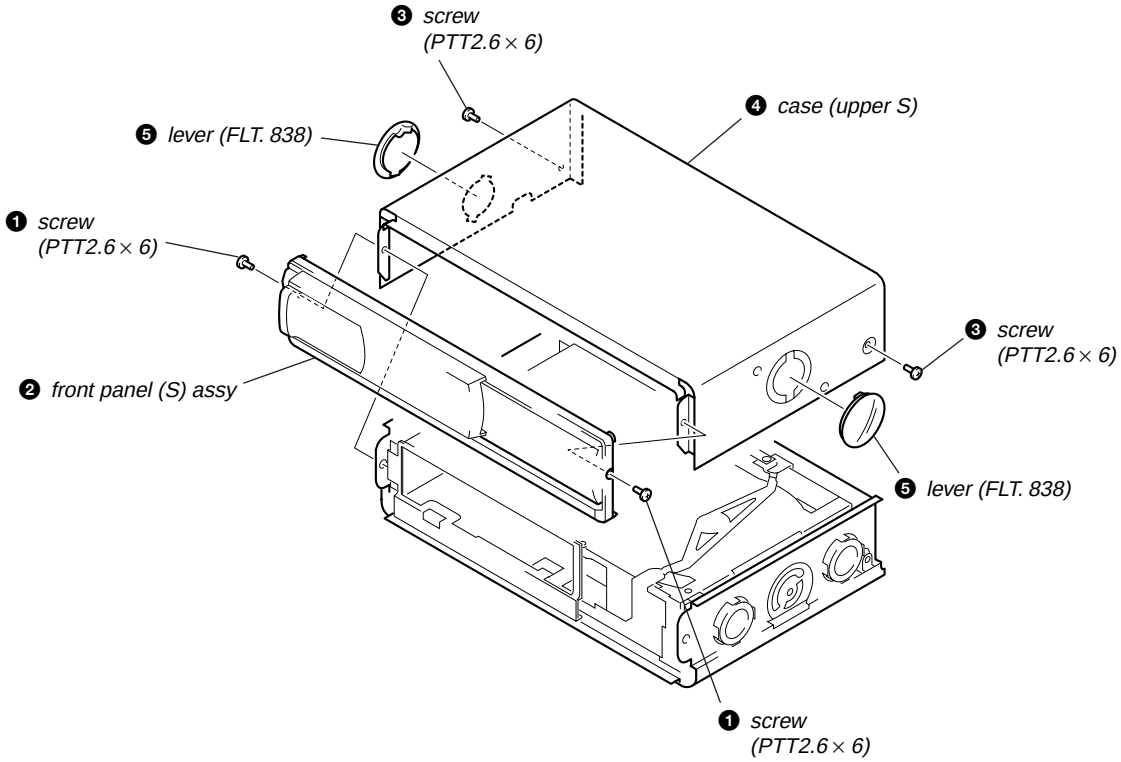
***Note 1:*** *The process described in ⊟ can be performed in any order.*

***Note 2:*** *Without completing the process described in ⊟, the next process can not be performed.*

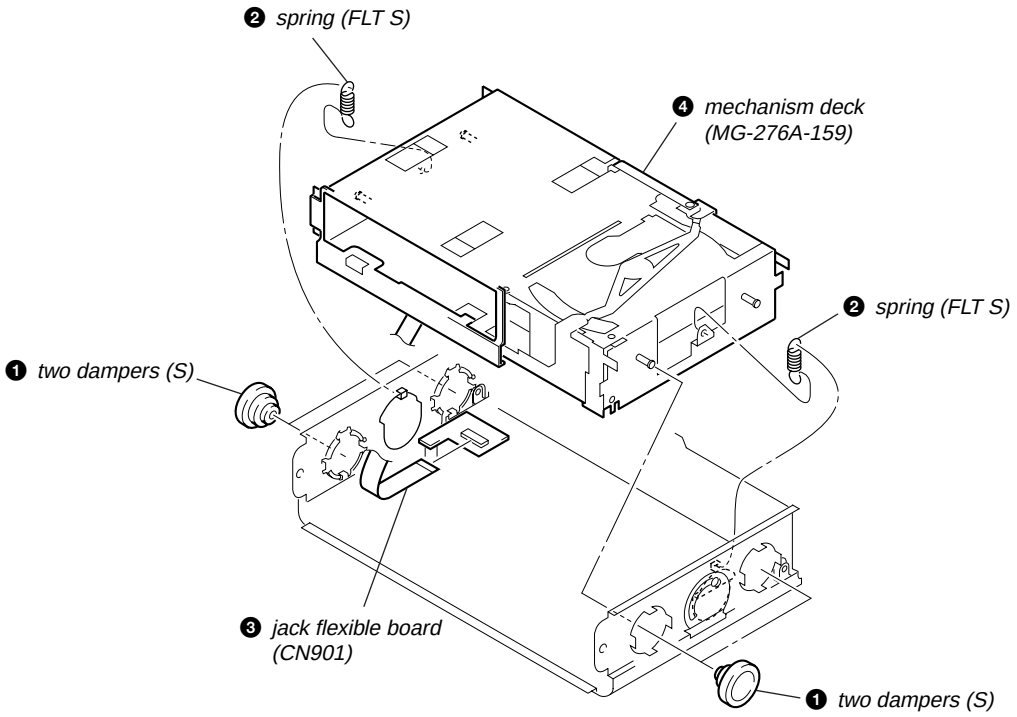

SET
2-2. FRONT PANEL (S) ASSY, CASE (UPPER S) (Page 6)
2-3. MECHANISM DECK (MG-276A-159) (Page 6)
2-4. JACK BOARD (Page 7)
2-5. BELT (TS) (Page 7)
2-6. MAIN BOARD (Page 8)
2-9. LE MOTOR ASSY (CHUCKING) (M103) (Page 9)
2-10. RF BOARD (Page 10)
2-7. ESCUTCHEON (S), SLIDE VARIABLE RESISTOR (ELEVATOR HEIGHT SENSOR) (RV301) (Page 8)
2-11. SLED MOTOR COMPLETE ASSY (M101) (Page 10)
2-8. MD MOTOR ASSY (ELEVATOR) (M104) (Page 9)
2-12. OPTICAL PICK-UP (KSS-720A) (Page 11)
2-13. CHASSIS (EV) ASSY (Page 11)
2-14. LEVER (CHK.L) ASSY, LEVER (CHK.R) ASSY (Page 12)
2-15. CHASSIS (OP) BLOCK SERVICE ASSY (Page 12)

**Note:** Follow the disassembly procedure in the numerical order given.

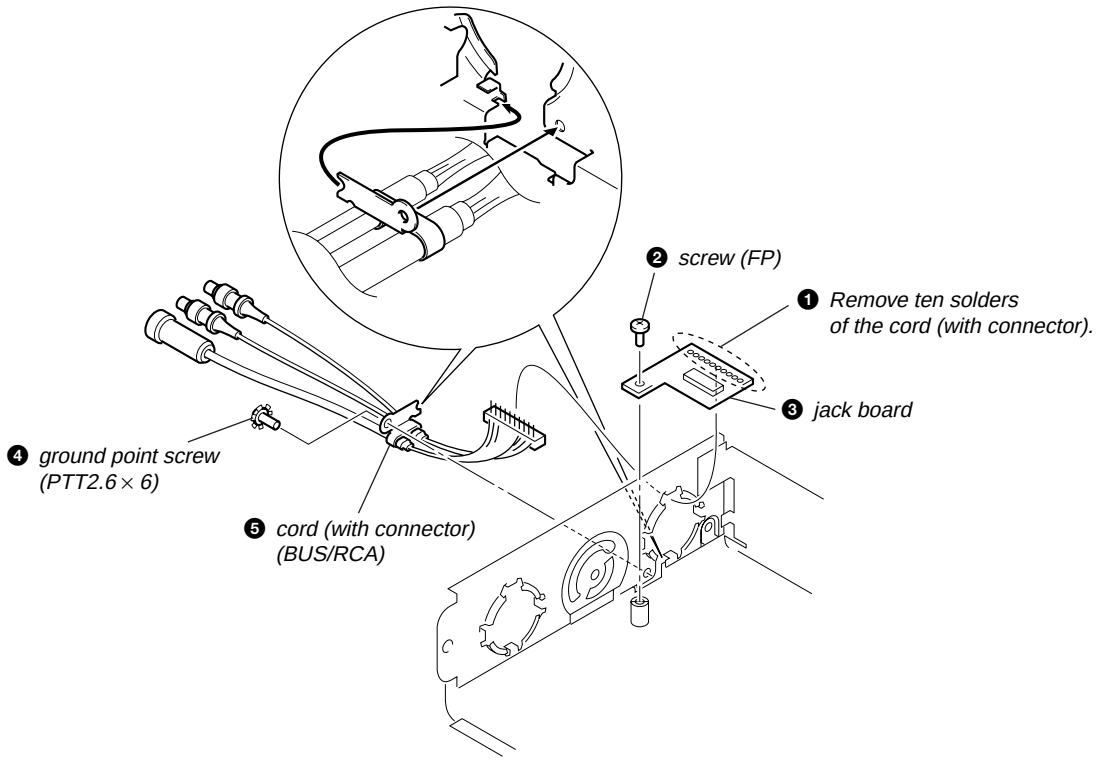
## 2-2. FRONT PANEL (S) ASSY, CASE (UPPER S)



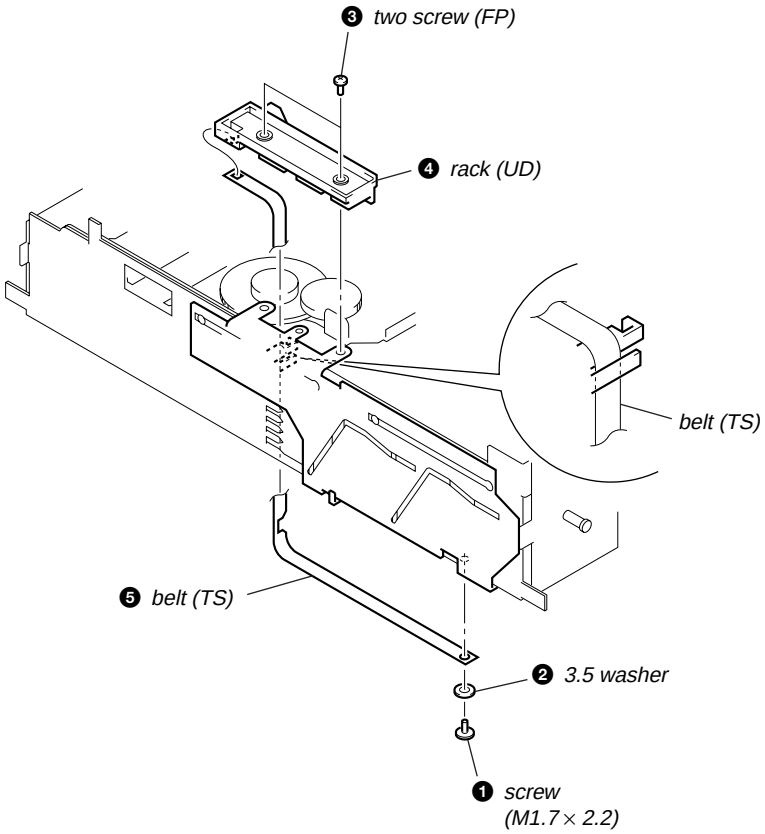

## 2-3. MECHANISM DECK (MG-276A-159)



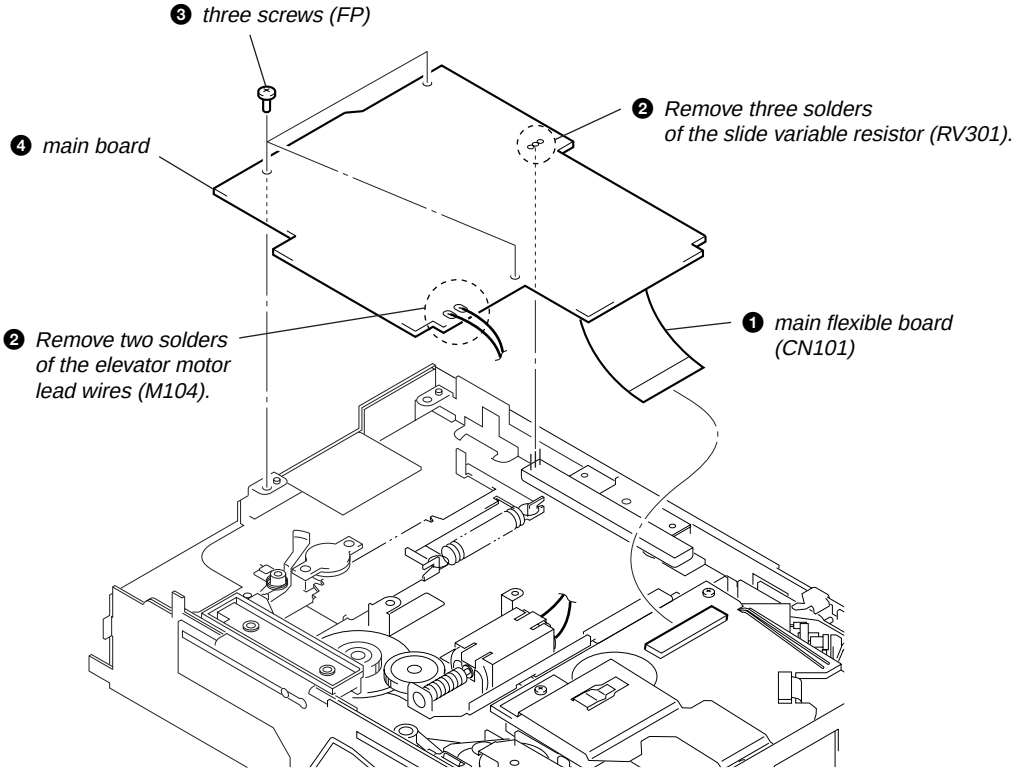
## 2-4. JACK BOARD


❷ screw (FP)
❶ Remove ten solders of the cord (with connector).
❸ jack board
❹ ground point screw (PTT2.6 × 6)
❺ cord (with connector) (BUS/RCA)

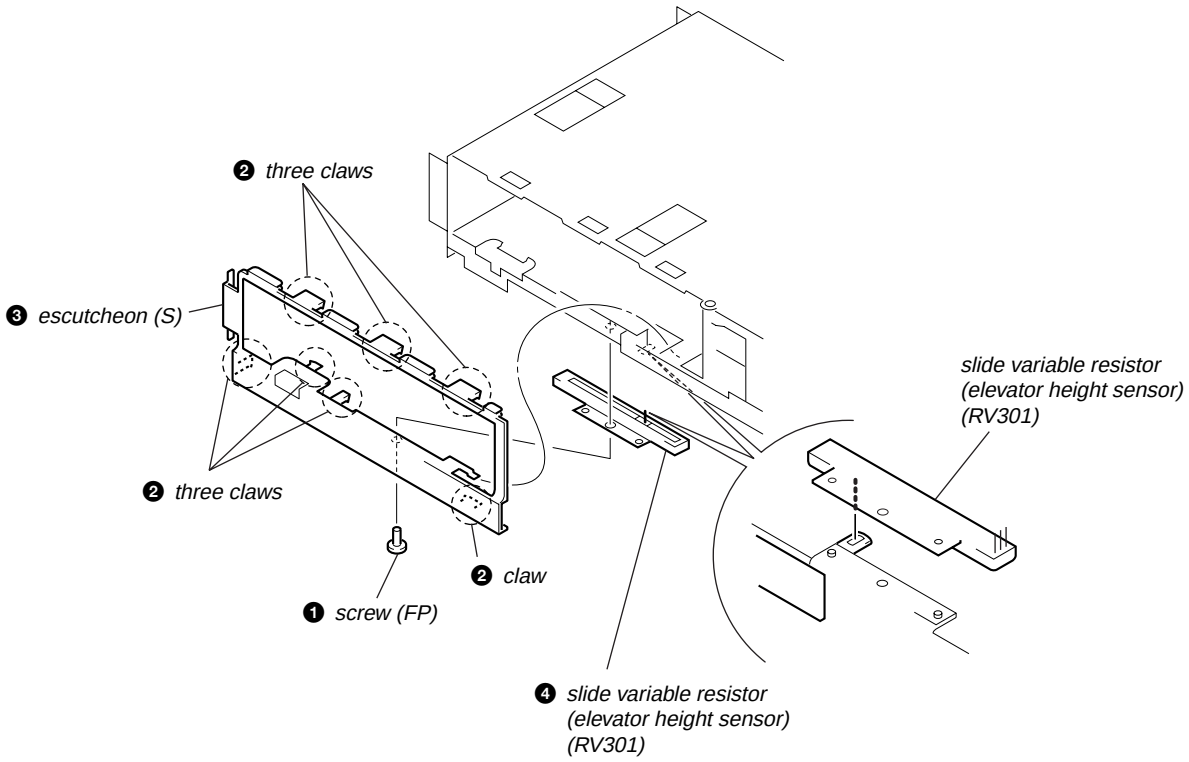
## 2-5. BELT (TS)



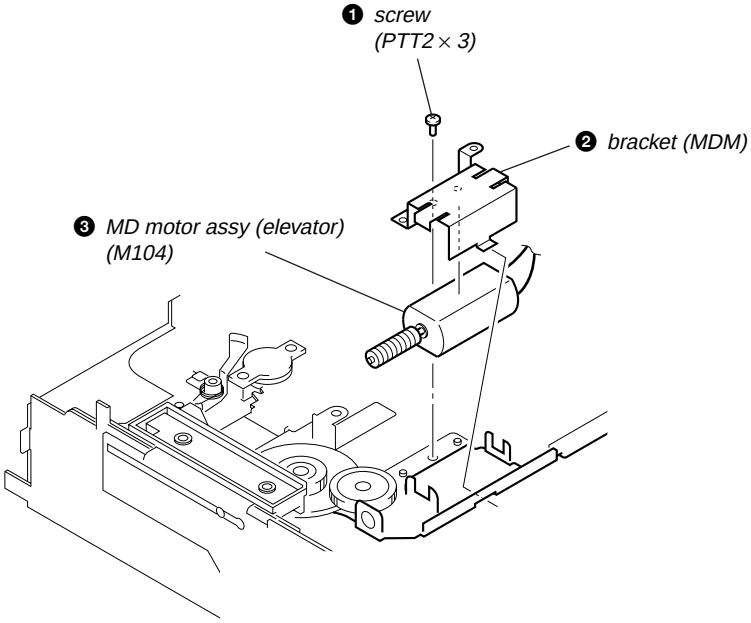
## 2-6. MAIN BOARD


❸ three screws (FP)
❹ main board
❷ Remove three solders of the slide variable resistor (RV301).
❷ Remove two solders of the elevator motor lead wires (M104).
❶ main flexible board (CN101)

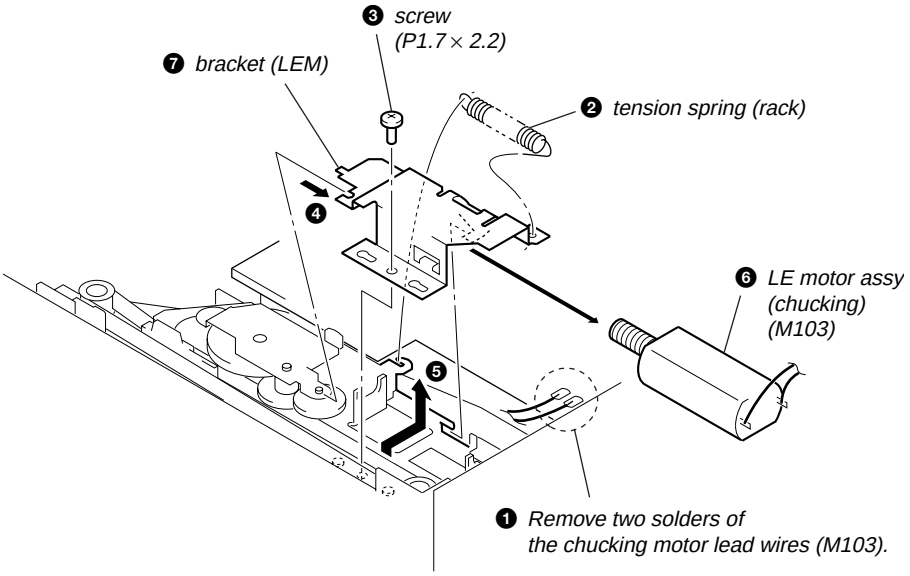
## 2-7. ESCUTCHEON (S), SLIDE VARIABLE RESISTOR (ELEVATOR HEIGHT SENSOR) (RV301)


❷ three claws
❸ escutcheon (S)
slide variable resistor (elevator height sensor) (RV301)
❷ three claws
❷ claw
❶ screw (FP)
❹ slide variable resistor (elevator height sensor) (RV301)

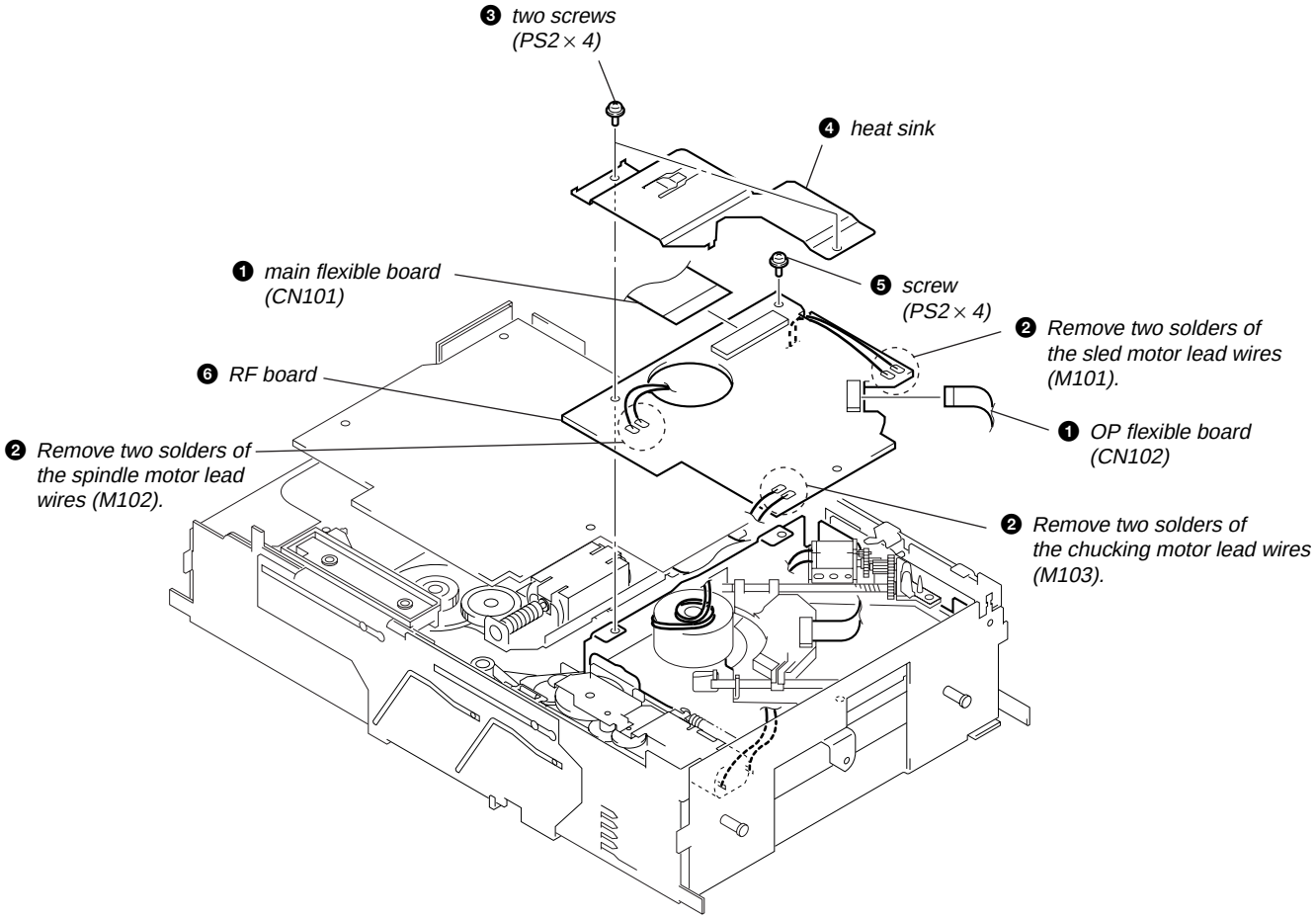
### 2-8. MD MOTOR ASSY (ELEVATOR) (M104)



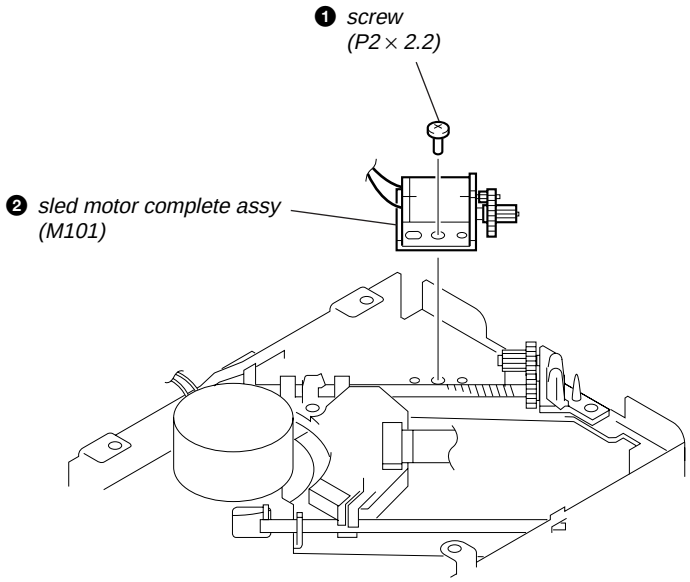

### 2-9. LE MOTOR ASSY (CHUCKING) (M103)



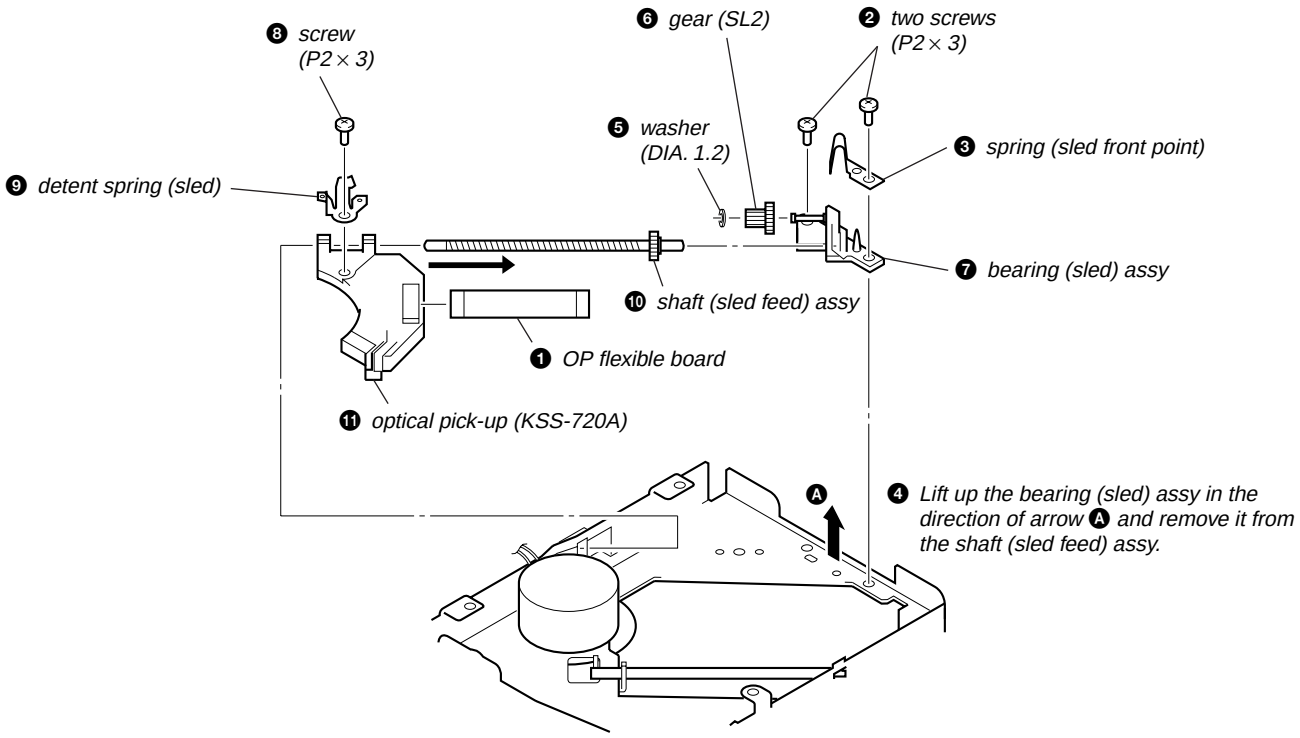
## 2-10. RF BOARD



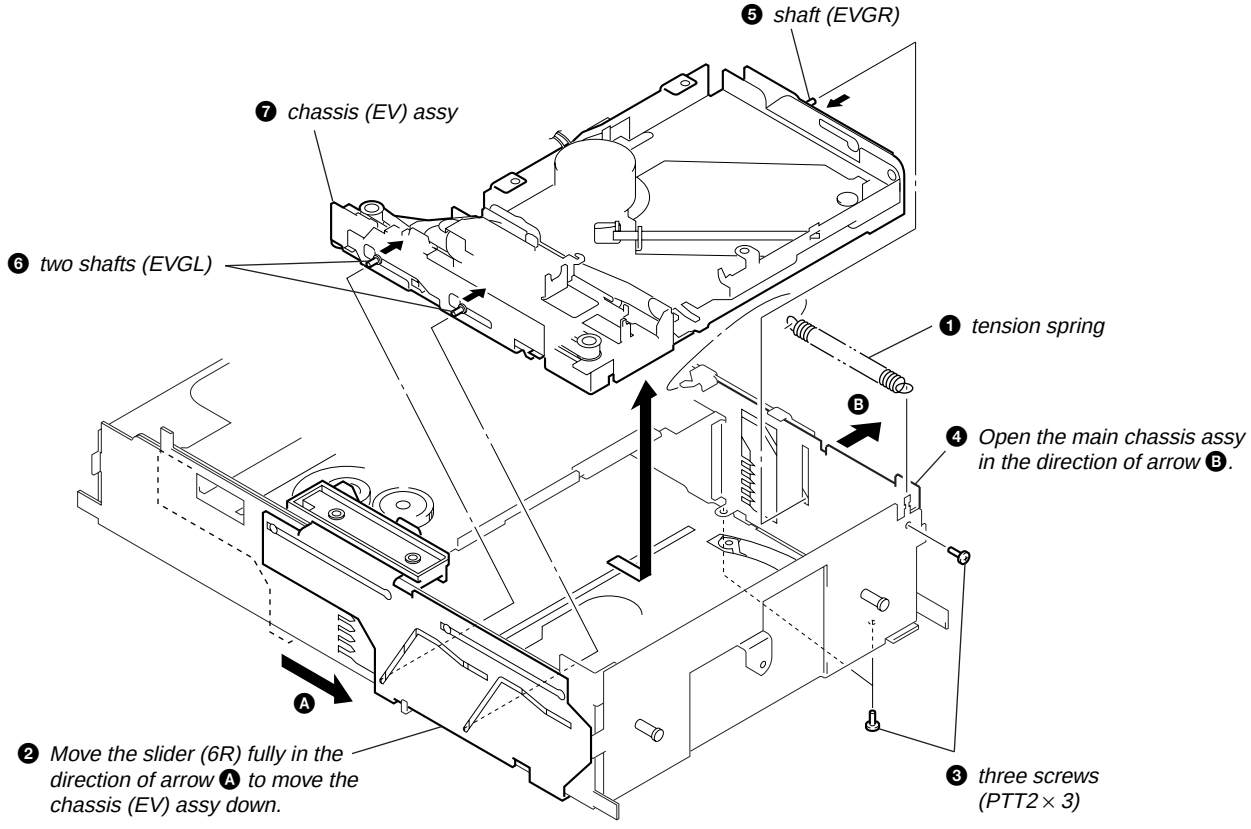

## 2-11. SLED MOTOR COMPLETE ASSY (M101)



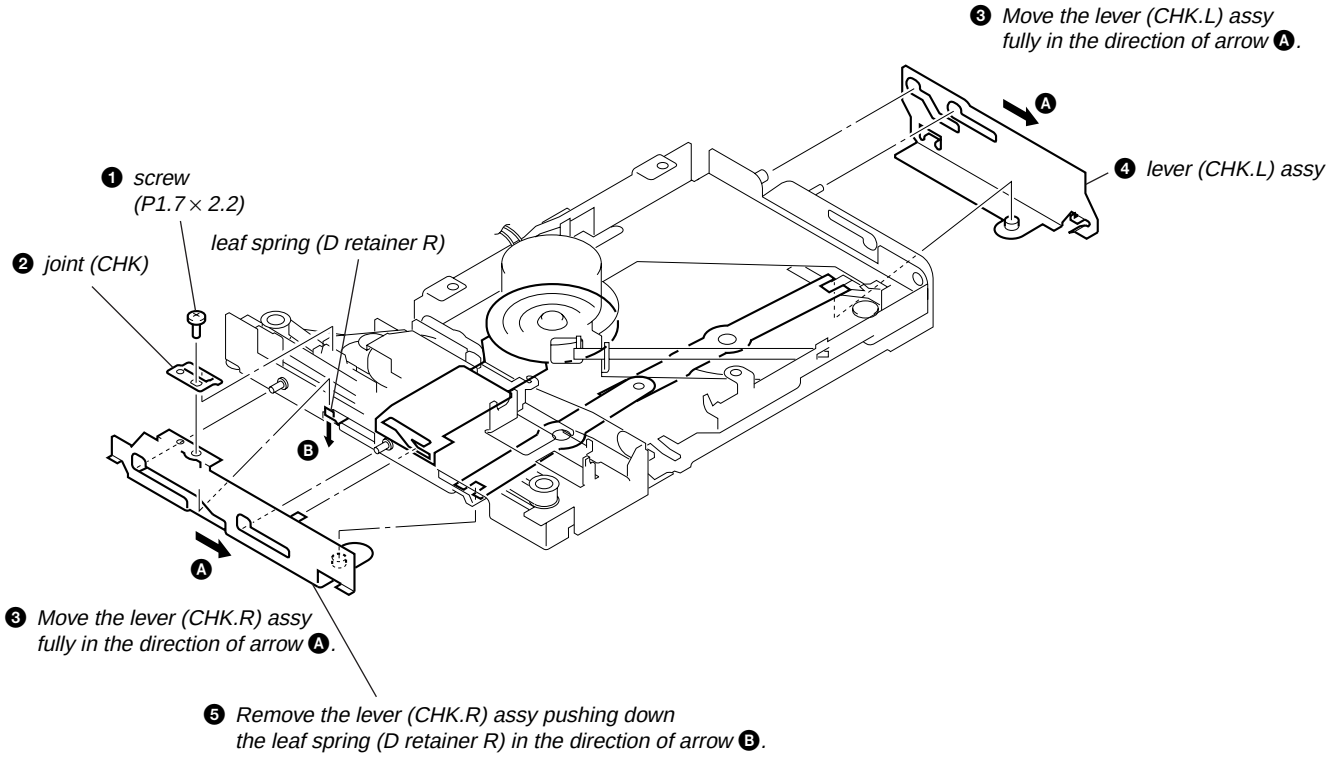
## 2-12. OPTICAL PICK-UP (KSS-720A)


❽ screw (P2 × 3)
❻ gear (SL2)
❷ two screws (P2 × 3)
❺ washer (DIA. 1.2)
❸ spring (sled front point)
❾ detent spring (sled)
❼ bearing (sled) assy
❿ shaft (sled feed) assy
❶ OP flexible board
⓫ optical pick-up (KSS-720A)
Ⓐ
❹ Lift up the bearing (sled) assy in the direction of arrow Ⓐ and remove it from the shaft (sled feed) assy.

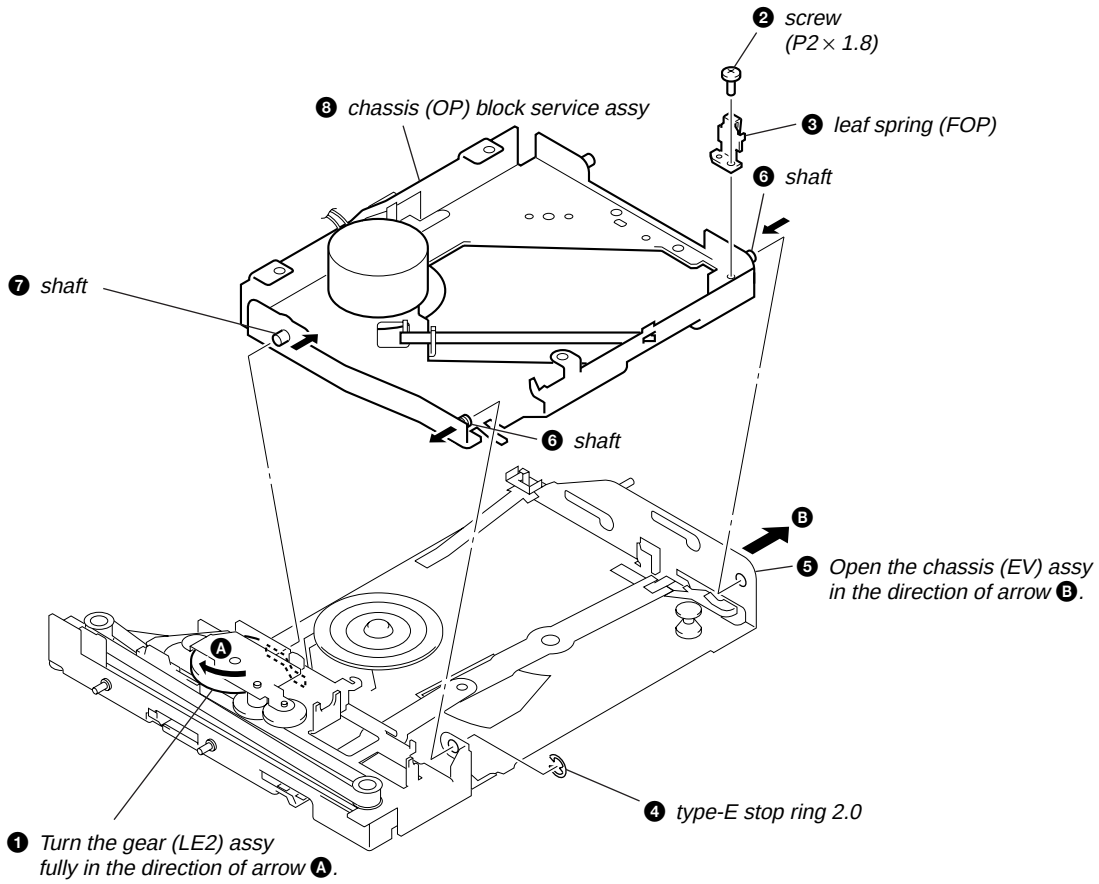
## 2-13. CHASSIS (EV) ASSY


❺ shaft (EVGR)
❼ chassis (EV) assy
❻ two shafts (EVGL)
❶ tension spring
Ⓑ
❹ Open the main chassis assy in the direction of arrow Ⓑ.
Ⓐ
❷ Move the slider (6R) fully in the direction of arrow Ⓐ to move the chassis (EV) assy down.
❸ three screws (PTT2 × 3)

## 2-14. LEVER (CHK.L) ASSY, LEVER (CHK.R) ASSY


❸ Move the lever (CHK.L) assy fully in the direction of arrow Ⓐ.
❶ screw (P1.7× 2.2)
leaf spring (D retainer R)
❷ joint (CHK)
❹ lever (CHK.L) assy
❸ Move the lever (CHK.R) assy fully in the direction of arrow Ⓐ.
❺ Remove the lever (CHK.R) assy pushing down the leaf spring (D retainer R) in the direction of arrow Ⓑ.

## 2-15. CHASSIS (OP) BLOCK SERVICE ASSY

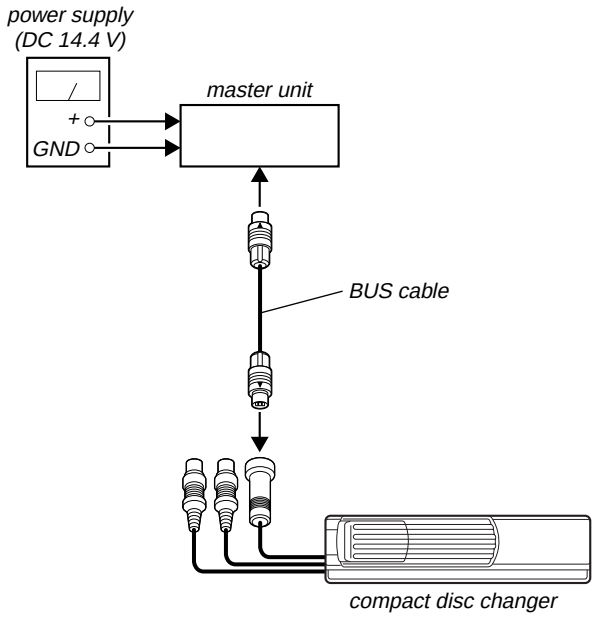

❷ screw (P2× 1.8)
❽ chassis (OP) block service assy
❸ leaf spring (FOP)
❻ shaft
❼ shaft
❻ shaft
❺ Open the chassis (EV) assy in the direction of arrow Ⓑ.
❹ type-E stop ring 2.0
❶ Turn the gear (LE2) assy fully in the direction of arrow Ⓐ.

# SECTION 3
# MECHANICAL ADJUSTMENT

## • Elevator Height (Address) Adjustment

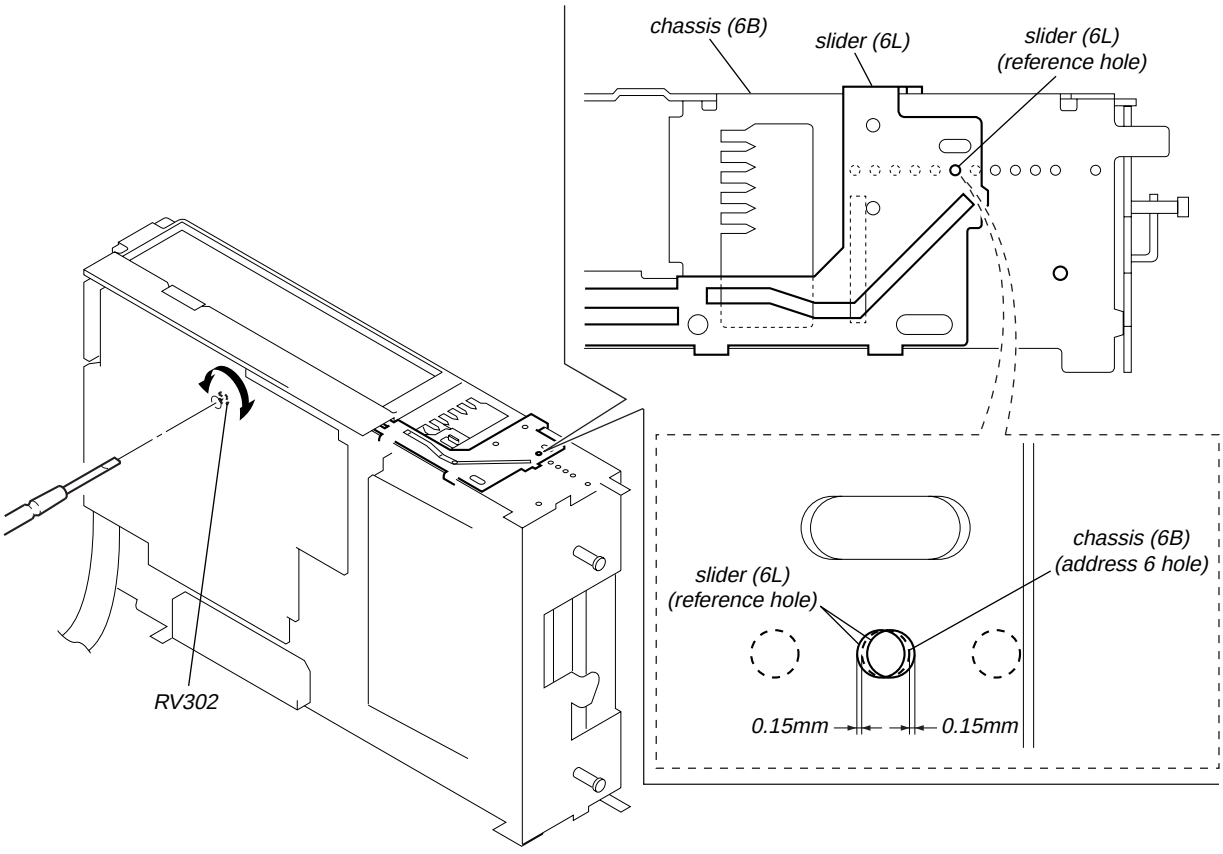
**Note:** This adjustments is necessary when the system controller (IC301), variable resistor (RV302), lever (CHK.L) assy, lever (CHK.R) assy, or chassis (EV) assy was replaced for any repair.

**Connection:**




**Adjustment Method:**

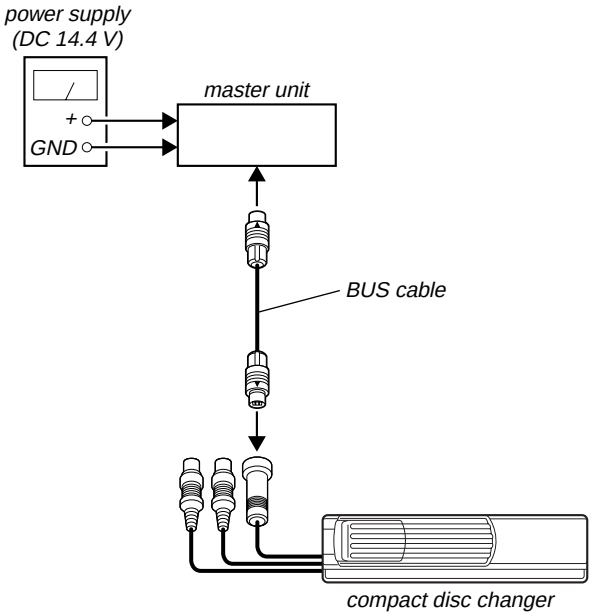
1. Connect this set to the master unit (e.g. MDX-C7970/C7970R), load a disc magazine, and place the set vertically as shown below.
2. Connect the regulated power supply to the master unit, and turn the power on.
3. Press the DISC button on the master unit and select DISC 6.
4. Adjust the variable resistor RV302 so that the reference holes of the slider (6L) and of the chassis (6B) meet within an error of ±0.15 mm when the tray is loaded at address 6.



# SECTION 4
# ELECTRICAL CHECK

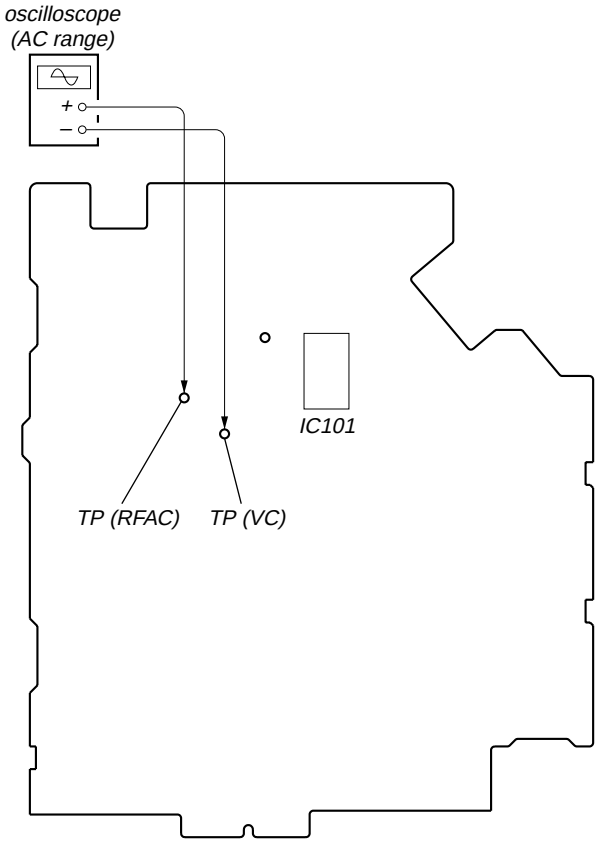
**Note:**
1. This check is performed with the set placed horizontally.
2. Power supply voltage: DC14.4 V (more than 3 A).
3. Be sure to use the disc "YEDS-18" parts code: 3-702-101-01, but only when indicated.

**Connection:**




## Focus Bias Check

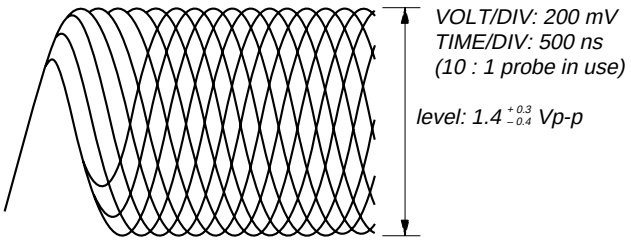
**Connection:**
**– RF Board (Component Side) –**




**Procedure:**
1. Connect the oscilloscope to TP (RFAC) and TP (VC) on the RF board.
2. Put the set into play mode by loading the disc (YEDS-18).
3. Confirm that oscilloscope waveform is clear and check RF signal level is correct or not.

**Note:**
Clear RF signal waveform means that the shape "◊" can be clearly distinguished at the center of the waveform.

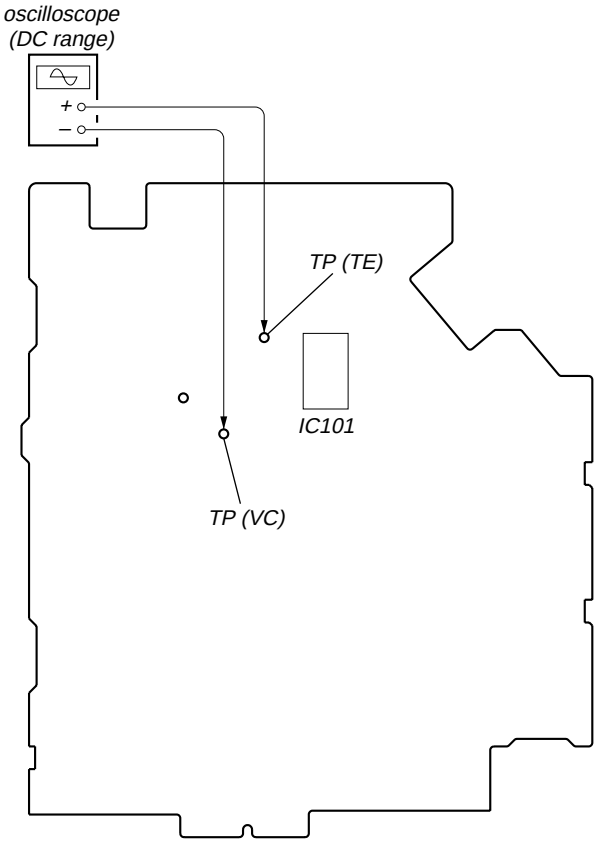
*RF signal waveform*




When observing the eye pattern, set the oscilloscope to AC range and raise the vertical sensitivity so that it may be easily seen.

**Tracking Offset Check**

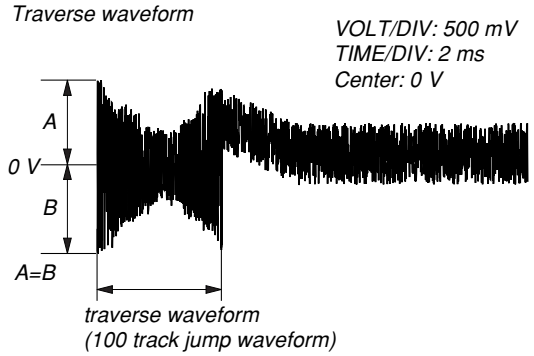
**Connection:**
**– RF Board (Component Side) –**




**Procedure:**

1. Connect the oscilloscope to TP (TE) and TP (VC) on the RF board.
2. Put the set into play mode by loading the disc (YEDS-18).
3. Press the [I◀◀ AMS ▶▶I] button on the master unit, and check the traverse waveform*.
4. Confirm that the oscilloscope waveform is symmetrical on the top and bottom in relation to 0 V dc, and check this level.

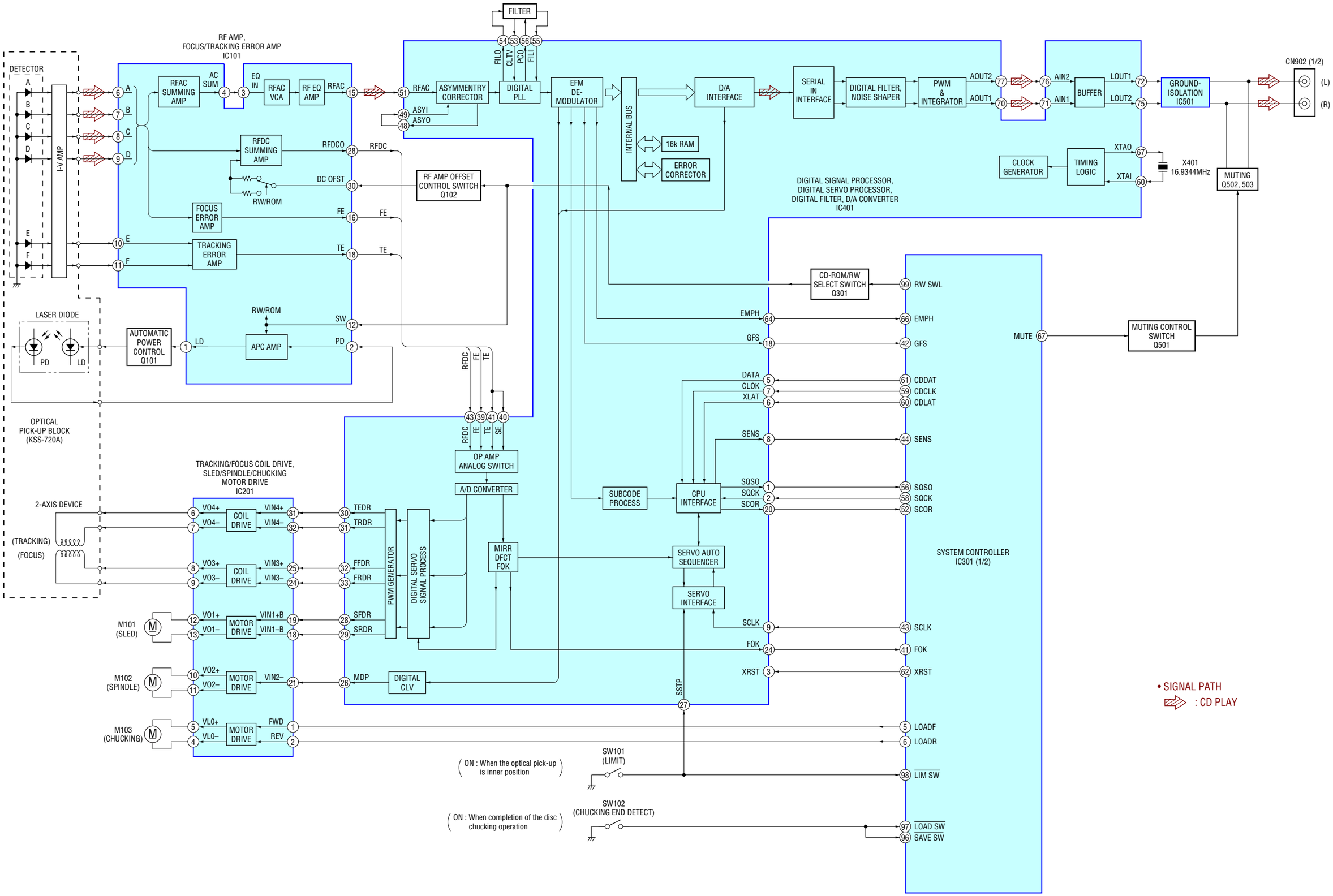
* Traverse waveform: This is the tracking error wave form appears when crossing the track.



*MEMO*

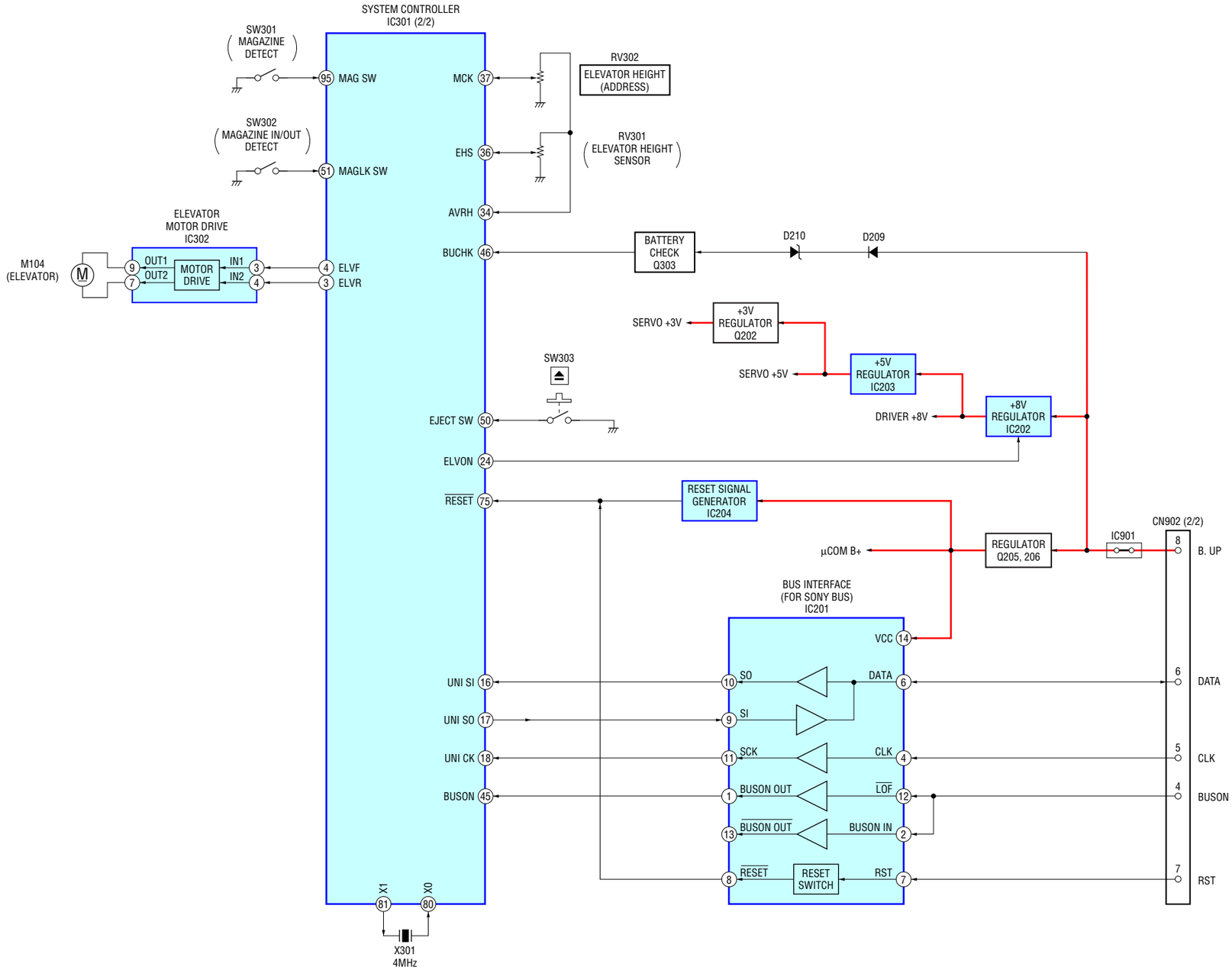
# SECTION 5
# DIAGRAMS

## 5-1. BLOCK DIAGRAM – SERVO Section –




• SIGNAL PATH
: CD PLAY

## 5-2. BLOCK DIAGRAM – BUS CONTROL/POWER SUPPLY Section –



## 5-3. NOTE FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

**Note on Printed Wiring Board:**
- ○——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- △ : internal component.
- ▬ : Pattern from the side which enables seeing.

(The other layers' patterns are not indicated.)

| Caution: | |
|---|---|
| Pattern face side: (Conductor Side) | Parts on the pattern face side seen from the pattern face are indicated. |
| Parts face side: (Component Side) | Parts on the parts face side seen from the parts face are indicated. |

**Note on Schematic Diagram:**
- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- ▭ : panel designation.

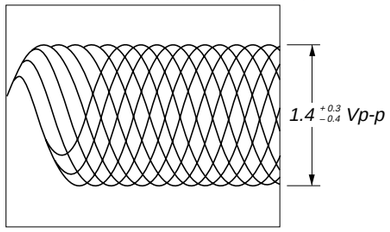
| **Note:** | **Note:** |
|---|---|
| The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified. | Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié. |

- ▬ : B+ Line.
- ▭ : adjustment for repair.
- Power voltage is dc 14.4V and fed with regulated dc power supply from CD changer controller.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark : CD PLAY
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : CD PLAY

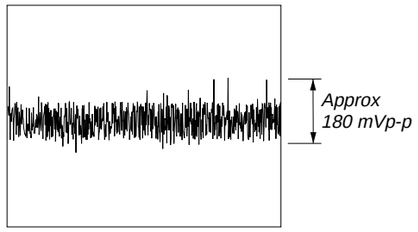
**• Waveforms**

**– RF Board –**

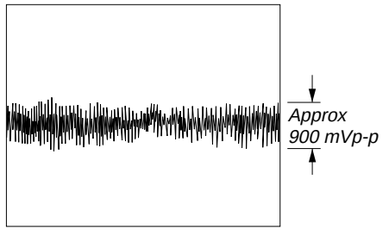
❶ IC101 ⑮ (RFAC) (CD play mode)




❷ IC101 ⑯ (FE) (CD play mode)

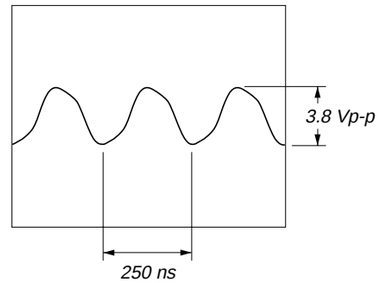



❸ IC101 ⑱ (TE) (CD play mode)

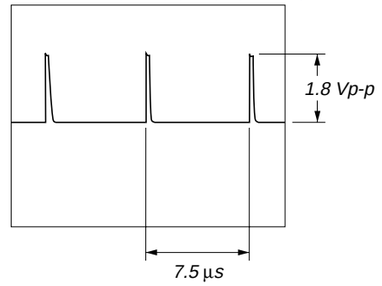



**– MAIN Board –**

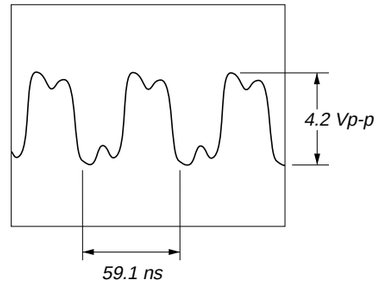
❶ IC301 ㉛ (X1) (CD play mode)



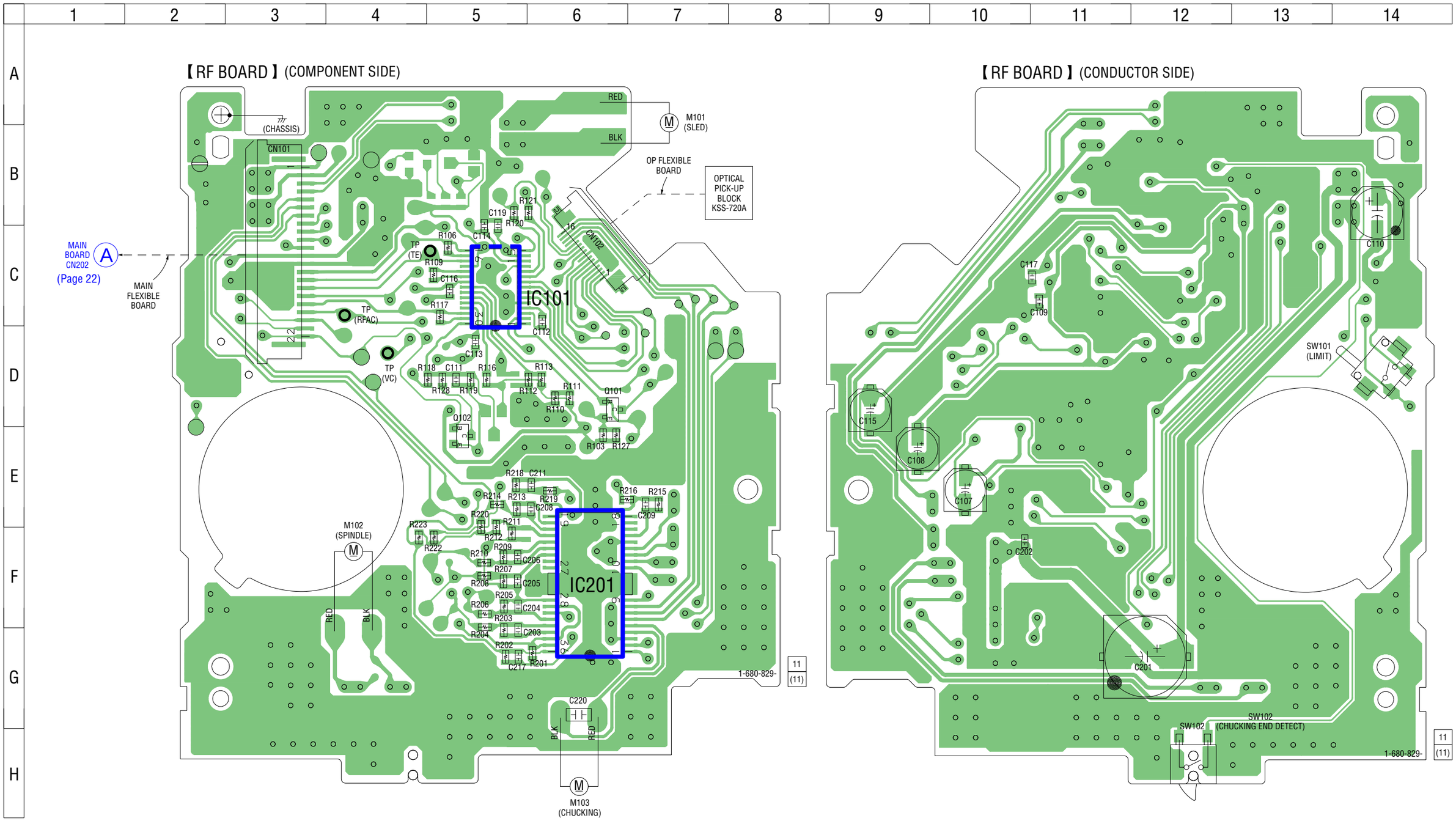

❷ IC401 ㉖ (MDP) (CD play mode)




❸ IC401 ㊼ (XTAO) (CD play mode)



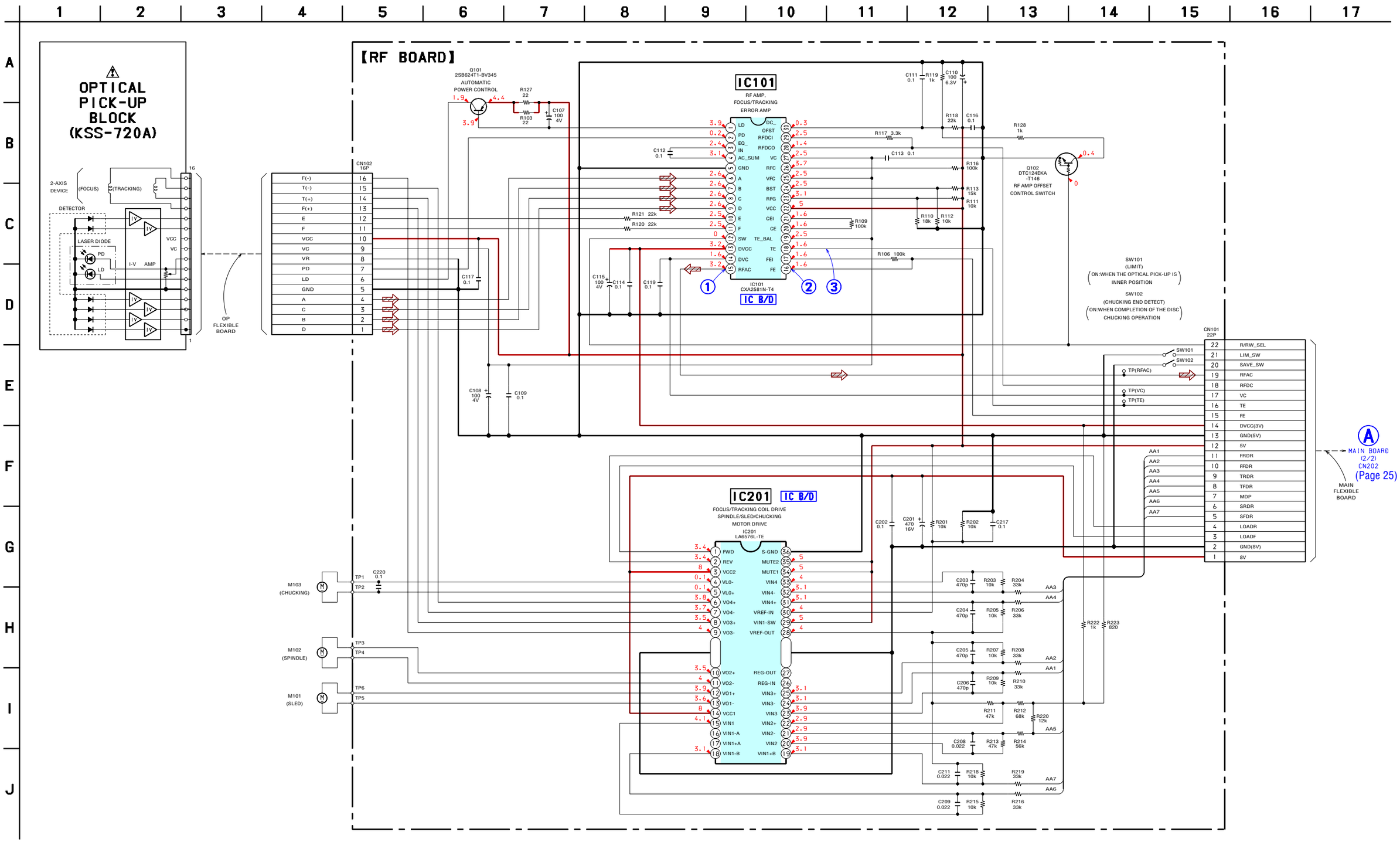
## 5-4. PRINTED WIRING BOARDS – RF Board –




- **Semiconductor Location**

| Ref. No. | Location |
|---|---|
| IC101 | C-5 |
| IC201 | F-6 |
| Q101 | D-6 |
| Q102 | E-5 |

## 5-5. SCHEMATIC DIAGRAM – RF Board – • See page 19 for Waveforms. • See page 27 for IC Block Diagrams.

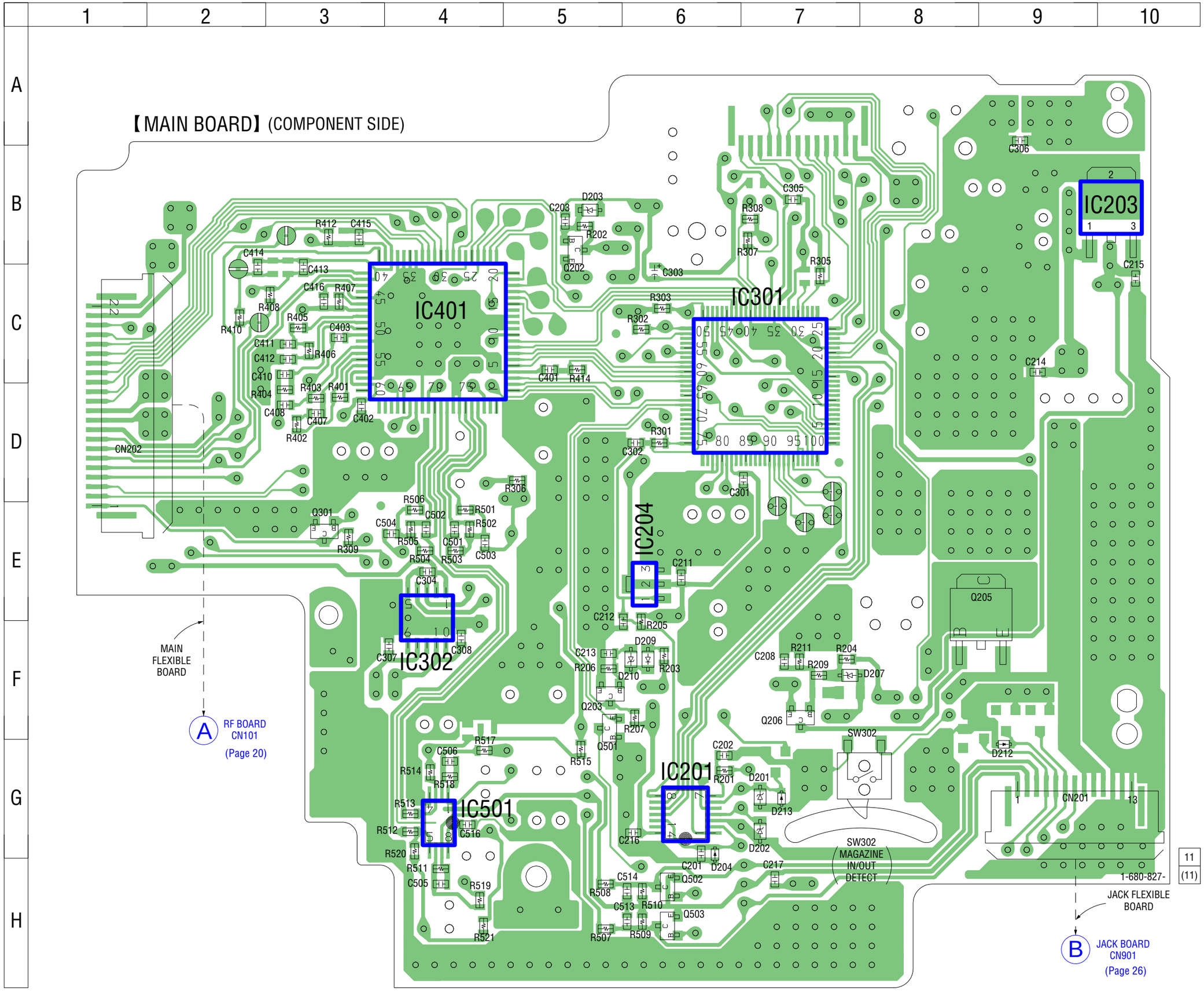



| The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified. | Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié. |
|---|---|

## 5-6. PRINTED WIRING BOARDS – MAIN Board (Component Side) –

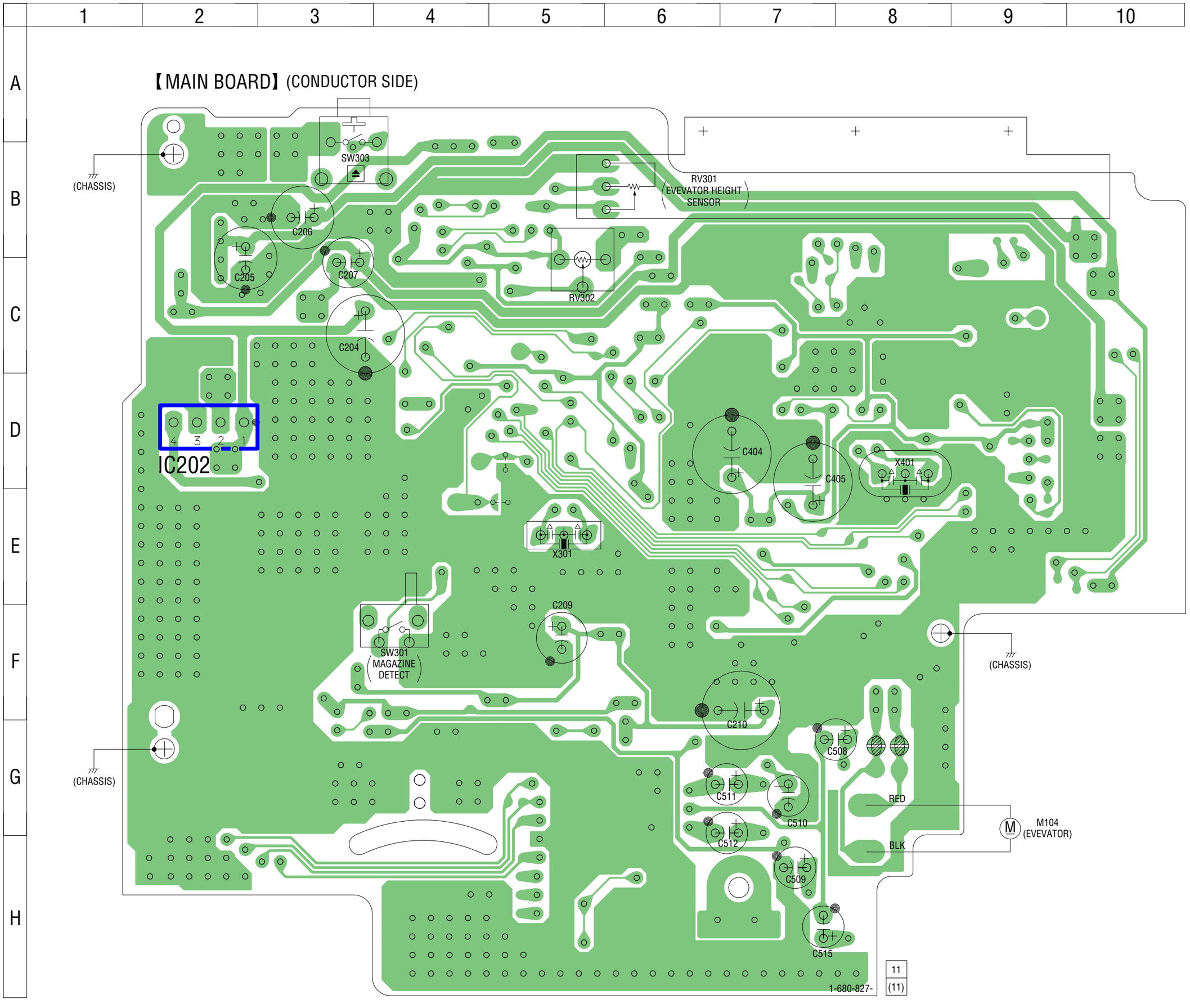
- **Semiconductor Location**

| Ref. No. | Location |
|---|---|
| D201 | G-7 |
| D202 | G-7 |
| D203 | B-5 |
| D204 | G-6 |
| D207 | F-7 |
| D209 | F-6 |
| D210 | F-6 |
| D212 | G-9 |
| D213 | G-7 |
| | |
| IC201 | G-6 |
| IC203 | B-10 |
| IC204 | E-6 |
| IC301 | D-7 |
| IC302 | E-4 |
| IC401 | C-4 |
| IC501 | G-4 |
| | |
| Q202 | B-5 |
| Q203 | F-5 |
| Q205 | E-9 |
| Q206 | F-7 |
| Q301 | E-3 |
| Q501 | F-5 |
| Q502 | H-6 |
| Q503 | H-6 |

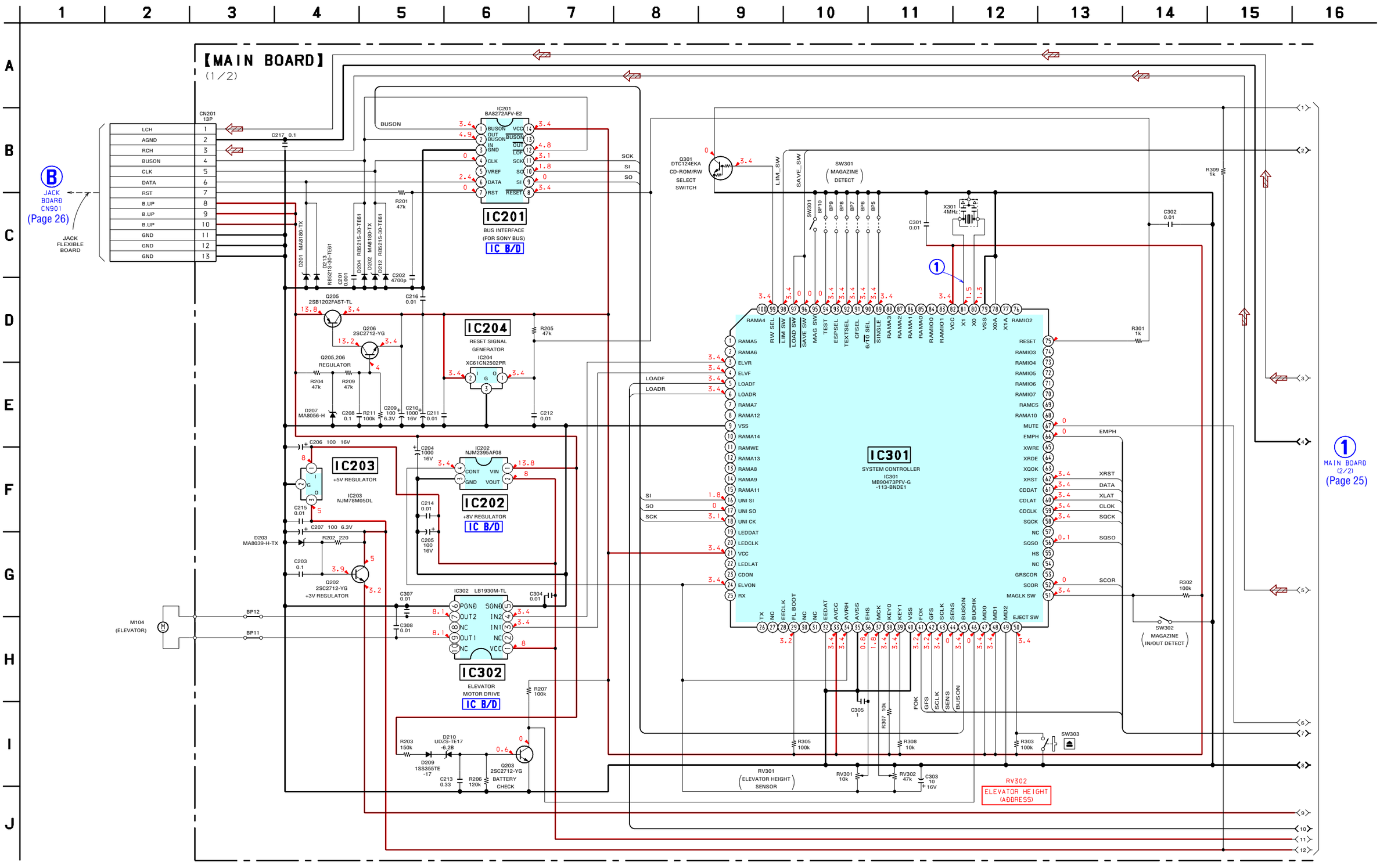


- **Semiconductor Location**

| Ref. No. | Location |
|---|---|
| IC202 | D-2 |



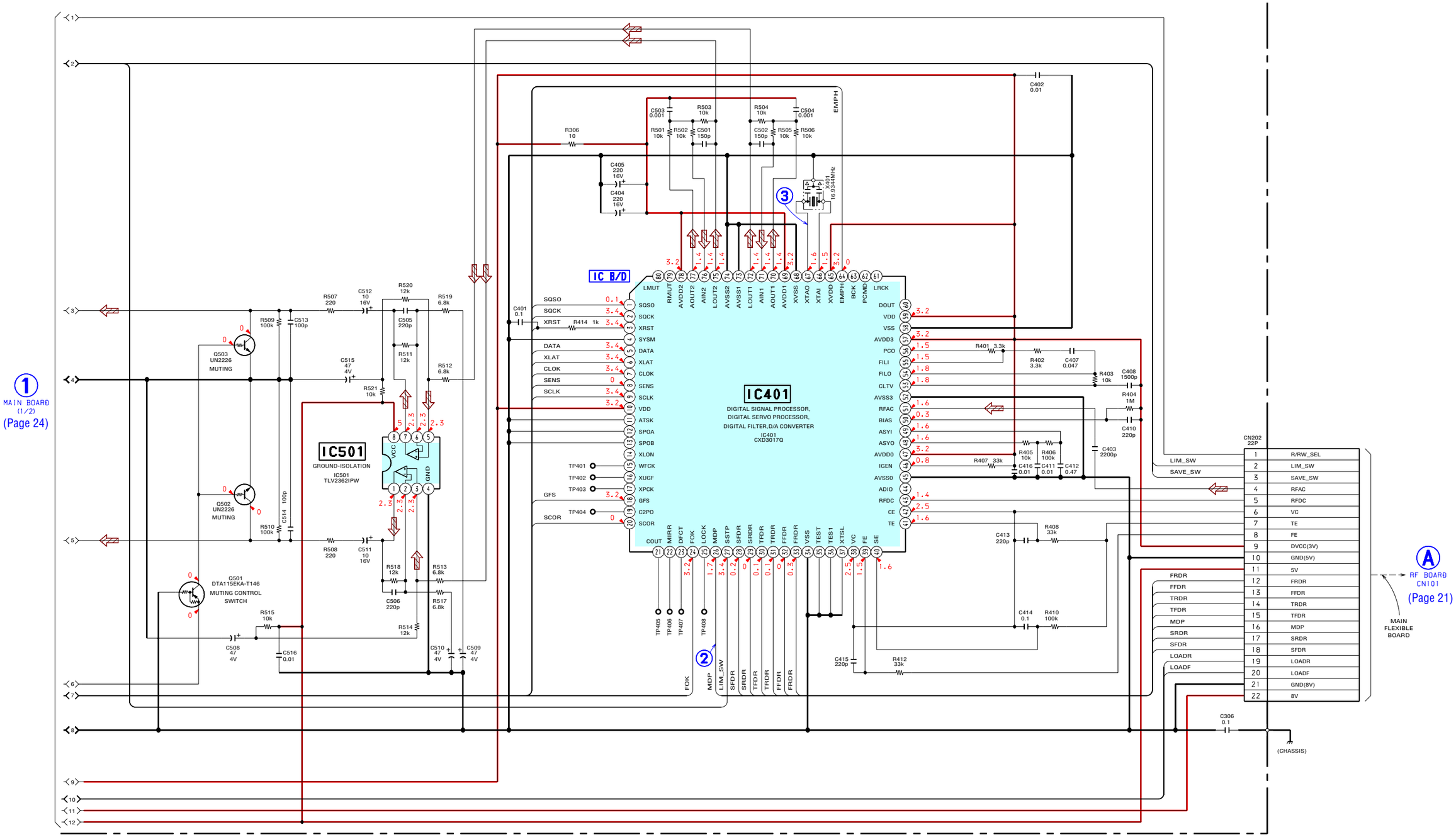
## 5-8. SCHEMATIC DIAGRAM – MAIN Board (1/2) – • See page 19 for Waveform. • See page 27 for IC Block Diagrams.



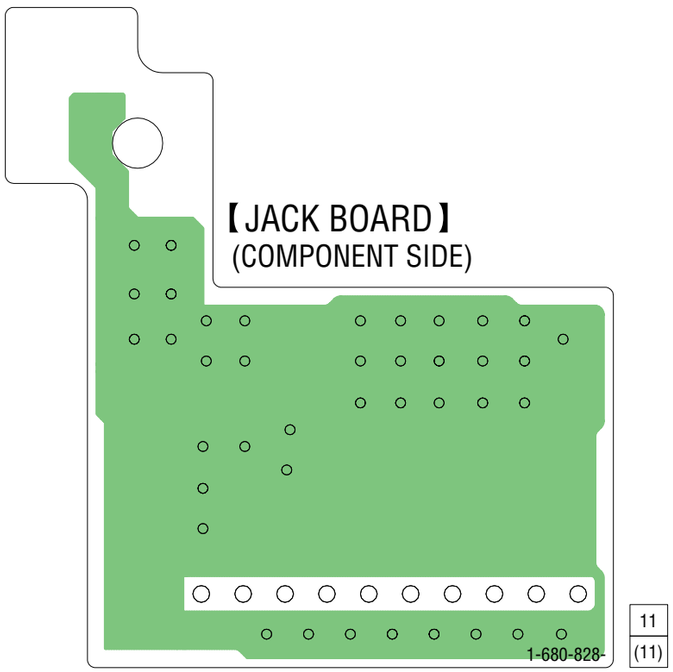
## 5-9. SCHEMATIC DIAGRAM – MAIN Board (2/2) –

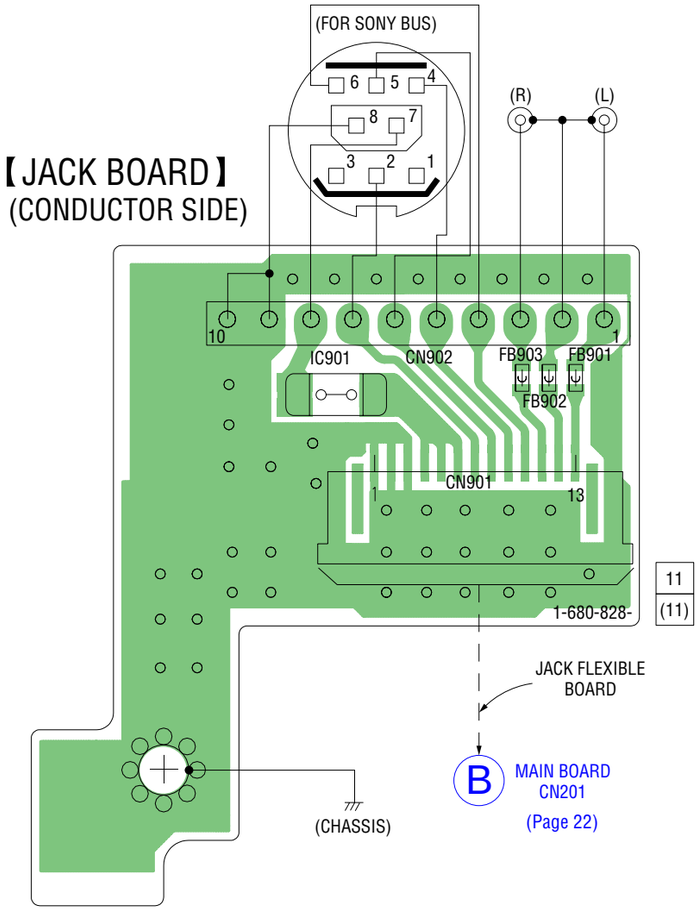
• See page 19 for Waveforms. • See page 27 for IC Block Diagram.

【MAIN BOARD】(2/2)

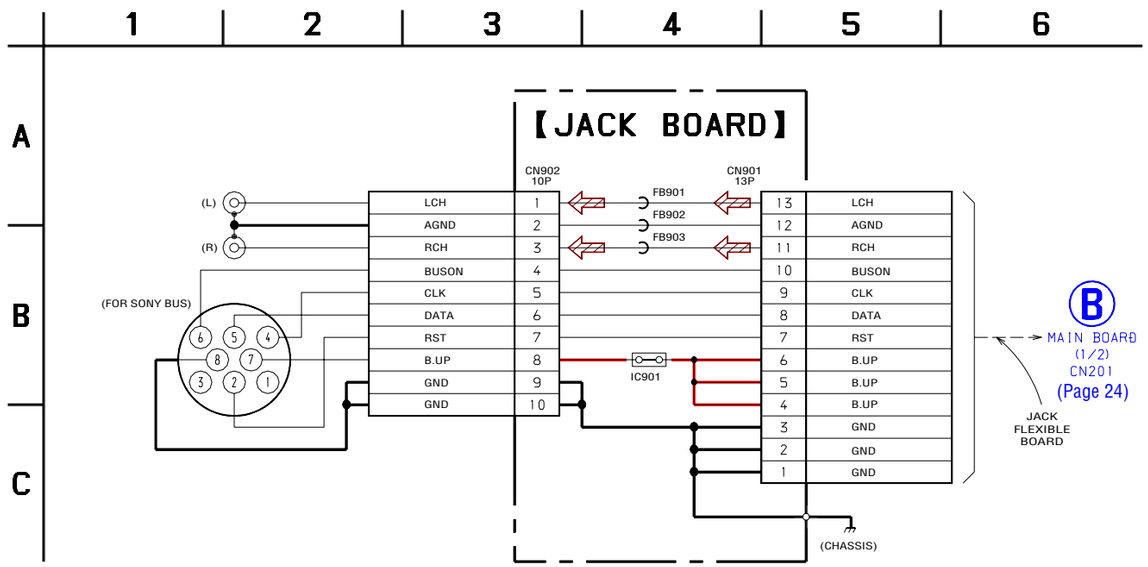


## 5-10. PRINTED WIRING BOARDS – JACK Board –



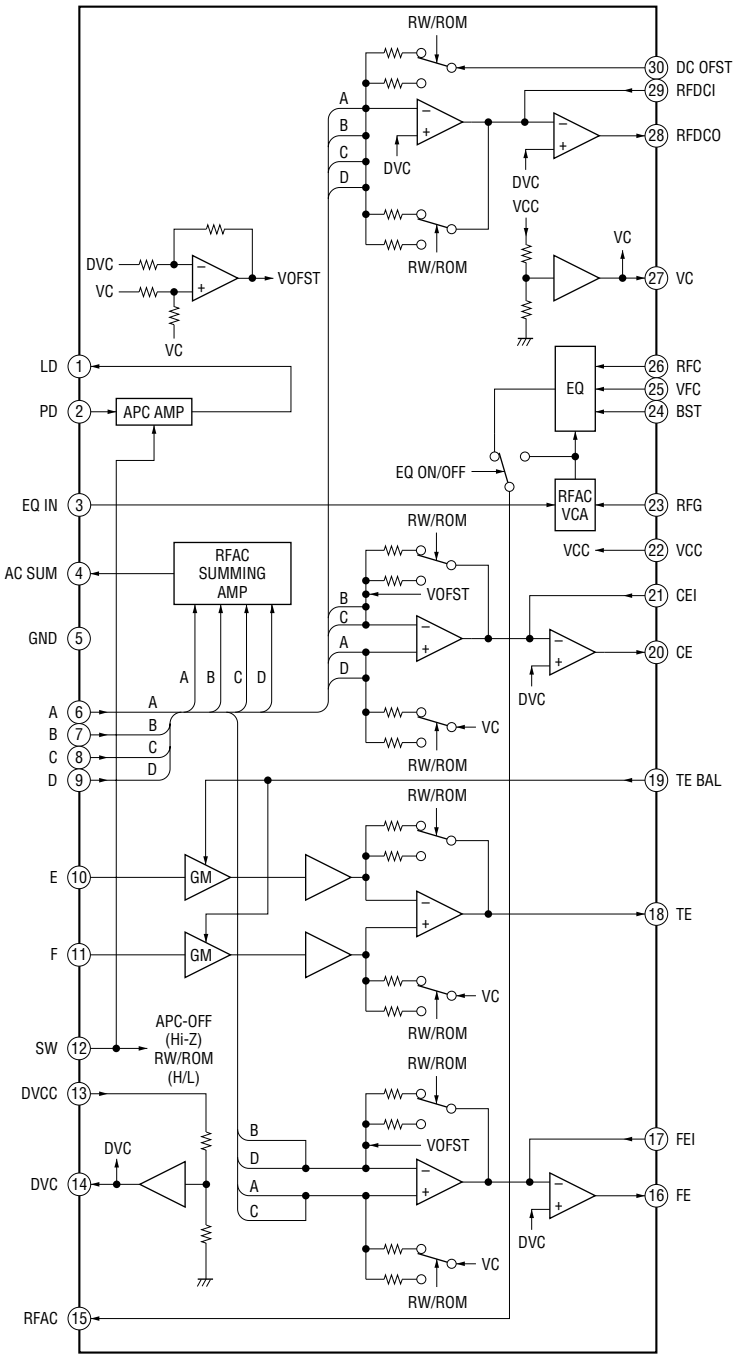




## 5-11. SCHEMATIC DIAGRAM – JACK Board –

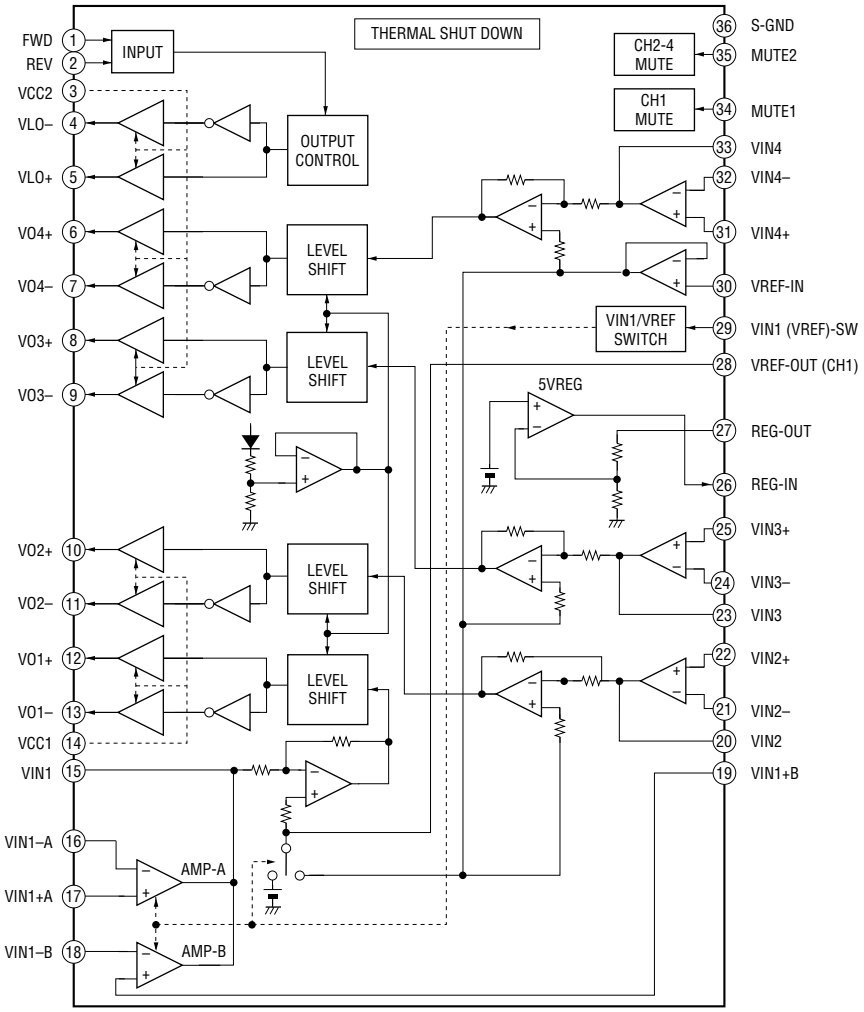


• **IC Block Diagrams**
**– RF Board –**

**IC101 CXA2581N-T4**

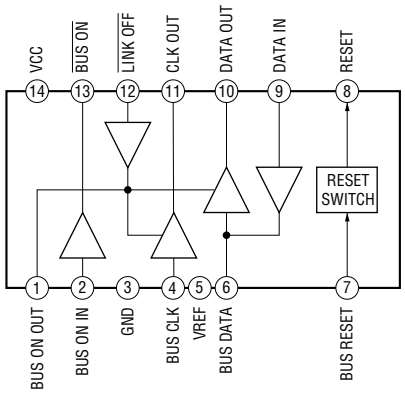


## IC201 LA6576L-TE-L

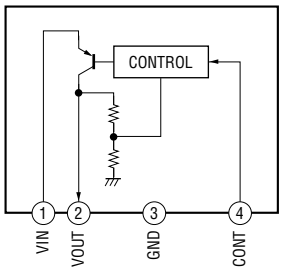



**– MAIN Board –**

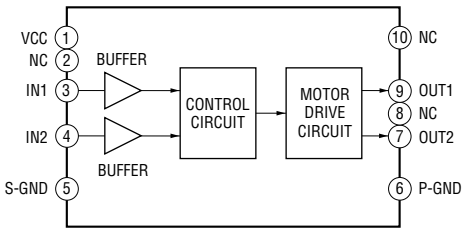
## IC201 BA8272AFV-E2



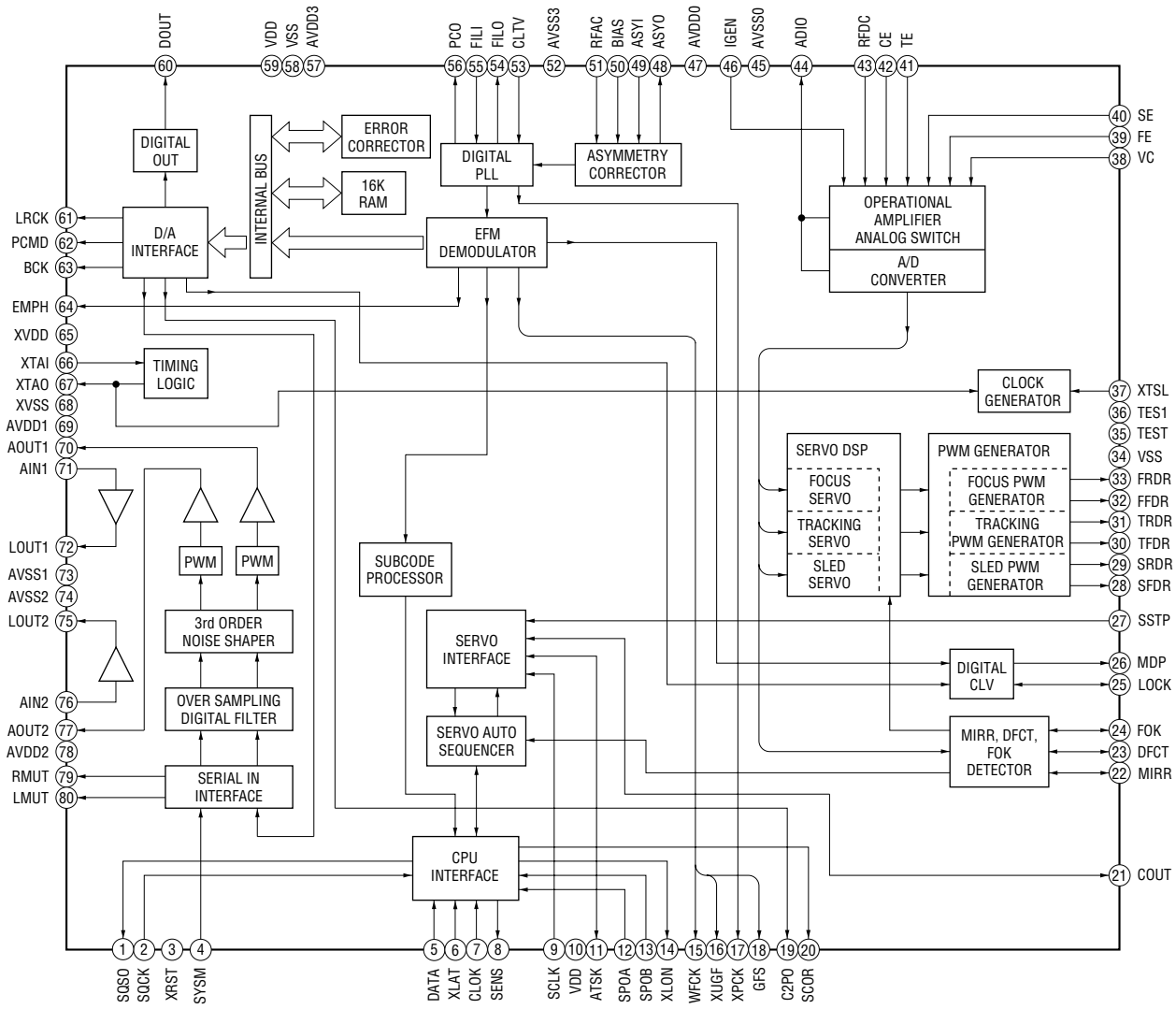

## IC202 NJM2395AF08



## IC302 LB1930M-TLM




## IC401 CXD3017Q



## 5-12. IC PIN FUNCTION DESCRIPTION

• **MAIN BOARD IC301 MB90473PFV-G-113-BNDE1 (SYSTEM CONTROLLER)**

| Pin No. | Pin Name | I/O | Description |
|---|---|---|---|
| 1, 2 | RAMA5, RAMA6 | O | Address signal output to the S-RAM Not used (open) |
| 3 | ELVR | O | Motor drive signal (elevator down direction) output to the elevator motor drive (IC302) "L" active *1 |
| 4 | ELVF | O | Motor drive signal (elevator up direction) output to the elevator motor drive (IC302) "L" active *1 |
| 5 | LOADF | O | Motor drive signal (load chucking direction) output to the chucking motor drive (IC201) "L" active *2 |
| 6 | LOADR | O | Motor drive signal (save direction) output to the chucking motor drive (IC201) "L" active *2 |
| 7, 8 | RAMA7, RAMA12 | O | Address signal output to the S-RAM Not used (open) |
| 9 | VSS | — | Ground terminal |
| 10 | RAMA14 | O | Address signal output to the S-RAM Not used (open) |
| 11 | RAMWE | O | Write enable output to the S-RAM Not used (open) |
| 12 to15 | RAMA13, RAMA8, RAMA9, RAMA11 | O | Address signal output to the S-RAM Not used (open) |
| 16 | UNI SI | I | Serial data input from the SONY bus interface (IC201) |
| 17 | UNI SO | O | Serial data output to the SONY bus interface (IC201) |
| 18 | UNI CK | I | Serial data transfer clock signal input from the SONY bus interface (IC201) |
| 19 | LEDDAT | O | Not used (open) |
| 20 | LEDCLK | O | Not used (open) |
| 21 | VCC | — | Power supply terminal |
| 22 | LEDLAT | O | Not used (open) |
| 23 | CDON | O | Power supply on/off control signal output terminal "H": power on Not used (open) |
| 24 | ELVON | O | Mechanism deck section power supply on/off control signal output "H": power on |
| 25 | RX | I | Input terminal at the flash memory data write mode Not used (open) |
| 26 | TX | O | Output terminal at the flash memory data write mode Not used (open) |
| 27 | NC | O | Not used (open) |
| 28 | EECLK | O | Serial data transfer clock signal output to the EEPROM Not used (open) |
| 29 | FL BOOT | I | Flash memory data write control signal input terminal "L" active Not used (fixed at "H") |
| 30, 31 | NC | O | Not used (open) |
| 32 | EEDAT | I/O | Two-way data bus with the EEPROM Not used (pull down) |
| 33 | AVCC | — | Power supply terminal (for A/D converter) |
| 34 | AVRH | I | Reference voltage input terminal (for A/D converter) |
| 35 | AVSS | — | Ground terminal (for A/D converter) |
| 36 | EHS | I | Elevator height position detection signal input from the RV301 (elevator height sensor) (A/D input) |
| 37 | MCK | I | Input of detection signal for the fine adjustment (elevator height (address) adjustment; RV302) of elevator height position (A/D input) |
| 38, 39 | KEY0, KEY1 | I | Not used (fixed at "H") |
| 40 | VSS | — | Ground terminal |
| 41 | FOK | I | Focus OK signal input from the CXD3017Q (IC401) "L": NG, "H": OK |
| 42 | GFS | I | Guard frame sync signal input from the CXD3017Q (IC401) "L": NG, "H": OK |
| 43 | SCLK | O | Serial data reading clock signal output to the CXD3017Q (IC401) |
| 44 | SENS | I | Internal status signal (sense signal) input from the CXD3017Q (IC401) |
| 45 | BUSON | I | Bus on/off control signal input from the SONY bus interface (IC201) "H": bus on |
| 46 | BUCHK | I | Battery detection signal input "L": battery on |

| Pin No. | Pin Name | I/O | Description |
|---|---|---|---|
| 47, 48 | MD0, MD1 | I | Setting terminal for the CPU operational mode (fixed at "H" in this set) |
| 49 | MD2 | I | Setting terminal for the CPU operational mode (fixed at "L" in this set) |
| 50 | EJECT SW | I | Eject switch (SW303) input terminal "L" active |
| 51 | MAGLK SW | I | Magazine in/out detect switch (SW302) input terminal<br>"L": magazine in/out operation, "H": normally |
| 52 | SCOR | I | Subcode sync (S0+S1) detection signal input from the CXD3017Q (IC401) |
| 53 | GRSCOR | I | Subcode sync (S0+S1) detection signal input terminal Not used (open) |
| 54 | NC | O | Not used (open) |
| 55 | HS | O | Normal/high speed playback control signal output terminal<br>"L": high speed playback Not used (open) |
| 56 | SQSO | I | Subcode Q data input from the CXD3017Q (IC401) |
| 57 | NC | O | Not used (open) |
| 58 | SQCK | O | Subcode Q data reading clock signal output to the CXD3017Q (IC401) |
| 59 | CDCLK | O | Serial data transfer clock signal output to the CXD3017Q (IC401) |
| 60 | CDLAT | O | Serial data latch pulse signal output to the CXD3017Q (IC401) |
| 61 | CDDAT | O | Serial data output to the CXD3017Q (IC401) |
| 62 | XRST | O | System reset signal output to the CXD3017Q (IC401) "L": reset |
| 63 | XQOK | O | Subcode Q OK pulse signal output terminal Not used (open) |
| 64 | XRDE | O | D-RAM read enable signal output terminal Not used (open) |
| 65 | XWRE | O | D-RAM write enable signal output terminal Not used (open) |
| 66 | EMPH | O | Emphasis control signal output to the CXD3017Q (IC401) "H": emphasis on |
| 67 | MUTE | O | Audio line muting on/off control signal output "H": muting on |
| 68 | RAMA10 | O | Address signal output to the S-RAM Not used (open) |
| 69 | RAMCS | O | Chip select enable output to the S-RAM Not used (open) |
| 70 to 74 | RAMIO7 to RAMIO3 | I/O | Two-way data bus with the S-RAM Not used (open) |
| 75 | $\overline{\text{RESET}}$ | I | System reset signal input from the SONY bus interface (IC201) and reset signal generator (IC204)<br>"L": reset<br>For several hundreds msec. after the power supply rises, "L" is input, then it changes to "H" |
| 76 | RAMIO2 | I/O | Two-way data bus with the S-RAM Not used (open) |
| 77 | X1A | O | Sub system clock output terminal Not used (open) |
| 78 | X0A | I | Sub system clock input terminal Not used (fixed at "L") |
| 79 | VSS | — | Ground terminal |
| 80 | X0 | I | Main system clock input terminal (4 MHz) |
| 81 | X1 | O | Main system clock output terminal (4 MHz) |
| 82 | VCC | — | Power supply terminal |
| 83, 84 | RAMIO1, RAMIO0 | I/O | Two-way data bus with the S-RAM Not used (open) |
| 85 to 88 | RAMA0 to RAMA3 | O | Address signal output to the S-RAM Not used (open) |
| 89 | $\overline{\text{SINGLE}}$ | I | Setting terminal for the single disc/multiple discs mode<br>"L": single disc mode, "H": multiple discs mode (fixed at "H") |
| 90 | 6/$\overline{10}$ SEL | I | Setting terminal for the 6 discs changer/10 discs changer model<br>"L": 10 discs changer model, "H": 6 discs changer model (fixed at "H") |
| 91 | CFSEL | I | Custom file on/off setting terminal "L": custom file on Not used (fixed at "H") |
| 92 | TEXTSEL | I | CD text mode setting terminal<br>"L": CD text on, "H": does not display track name Not used (fixed at "H") |
| 93 | ESPSEL | I | ESP mode setting terminal "L": ESP on Not used (fixed at "H") |
| 94 | TEST | I | Test on/off setting terminal "L": test mode Not used (fixed at "H") |
| 95 | MAG SW | I | Magazine detect switch (SW301) input terminal "L": magazine is set |

| Pin No. | Pin Name | I/O | Description |
|---|---|---|---|
| 96 | $\overline{\text{SAVE SW}}$ | I | Chucking end detect switch (SW102) input terminal<br>“L”: When completion of the disc chucking, loading or save operation |
| 97 | $\overline{\text{LOAD SW}}$ | I | Chucking end detect switch (SW102) input terminal<br>“L”: When completion of the disc chucking, loading or save operation |
| 98 | $\overline{\text{LIM SW}}$ | I | Sled limit in detect switch (SW101) input terminal<br>“L”: When the optical pick-up is inner position |
| 99 | RW SEL | O | CD-ROM/RW selection signal output “L”: CD-RW, “H”: CD-ROM |
| 100 | RAMA4 | O | Address signal output to the S-RAM Not used (open) |

*1 elevator motor (M104) control

| Mode / Terminal | STOP | ELEVATOR UP | ELEVATOR DOWN | BRAKE |
|---|---|---|---|---|
| ELVF (pin ④) | “L” | “L” | “H” | “H” |
| ELVR (pin ③) | “L” | “H” | “L” | “H” |

*2 chucking motor (M103) control

| Mode / Terminal | STOP | LOAD CHUCKING | SAVE | BRAKE |
|---|---|---|---|---|
| LOADF (pin ⑤) | “L” | “L” | “H” | “H” |
| LOADR (pin ⑥) | “L” | “H” | “L” | “H” |

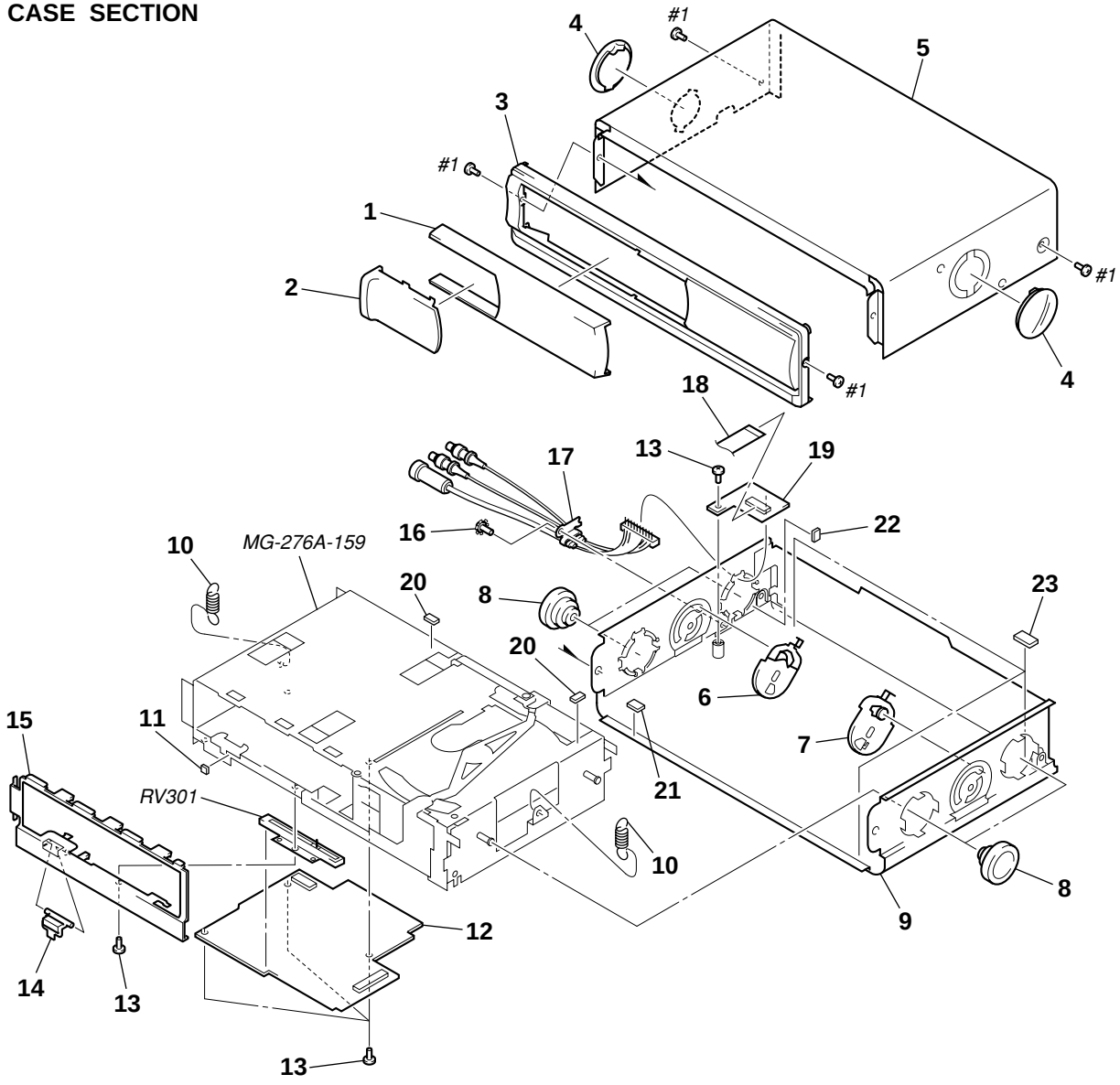
# SECTION 6
# EXPLODED VIEWS

NOTE:
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example:
  KNOB, BALANCE (WHITE) . . . (RED)
  ↑ ↑
  Parts Color Cabinet's Color
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of the electrical parts list.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiquens pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

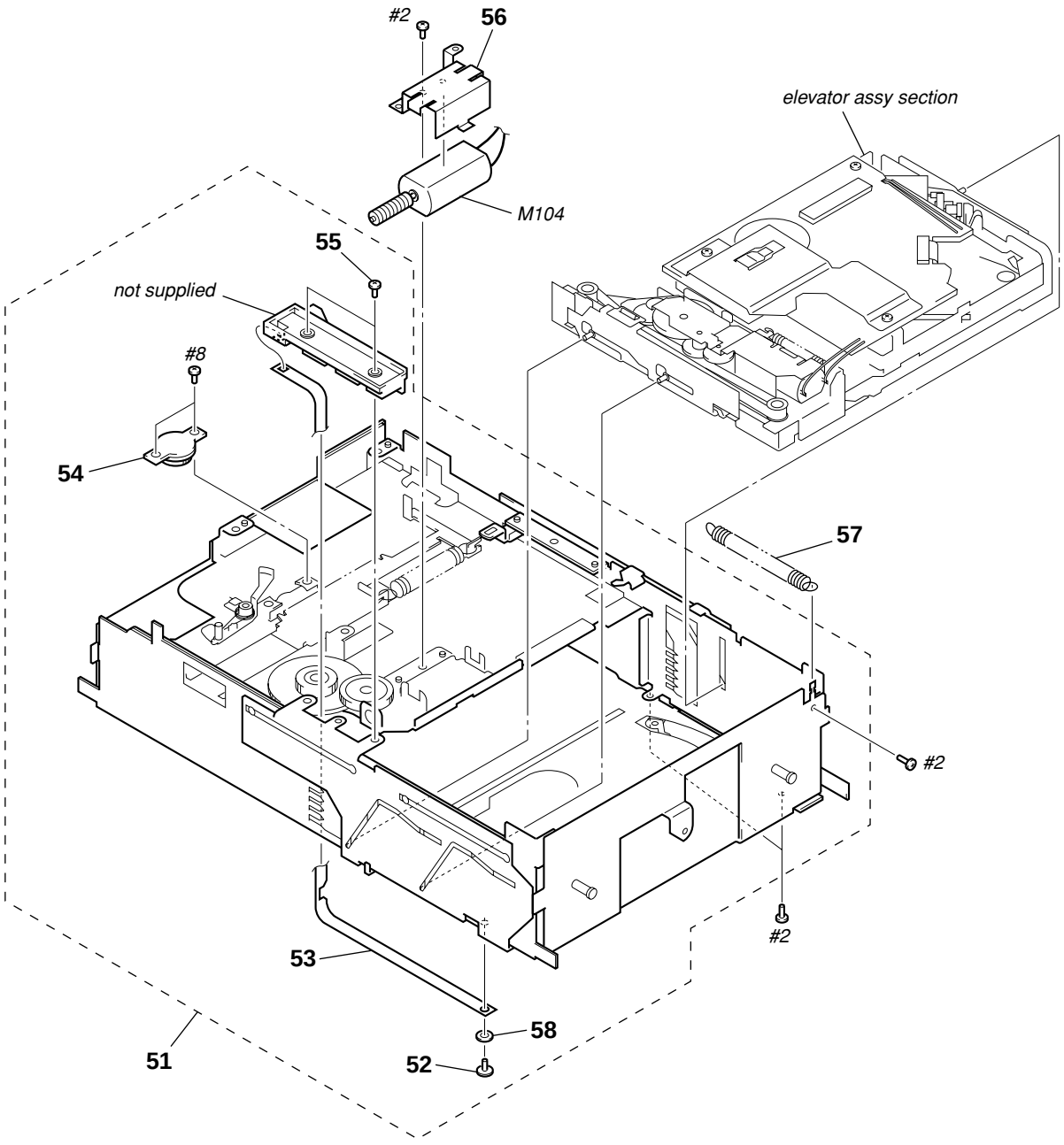
## 6-1. CASE SECTION




| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| 1 | 3-225-801-11 | DOOR (S) | |
| 2 | 3-225-802-01 | BUCKLE (S) | |
| 3 | X-3379-940-1 | PLATE ASSY, F/P | |
| 4 | 3-047-886-11 | LEVER (FLT. 838) | |
| 5 | 3-225-798-11 | CASE (UPPER S) | |
| 6 | X-3379-931-1 | ARM (FLT. S) ASSY | |
| 7 | X-3379-932-1 | ARM (FRT. S) ASSY | |
| 8 | 3-225-807-01 | DAMPER (S) | |
| 9 | X-3379-942-1 | CASE (LOWER. S) ASSY | |
| 10 | 3-225-808-01 | SPRING (FLT S) | |
| 11 | 3-233-247-01 | SPACER (BUTTON EJECT) | |
| 12 | A-3326-968-A | MAIN BOARD, COMPLETE | |

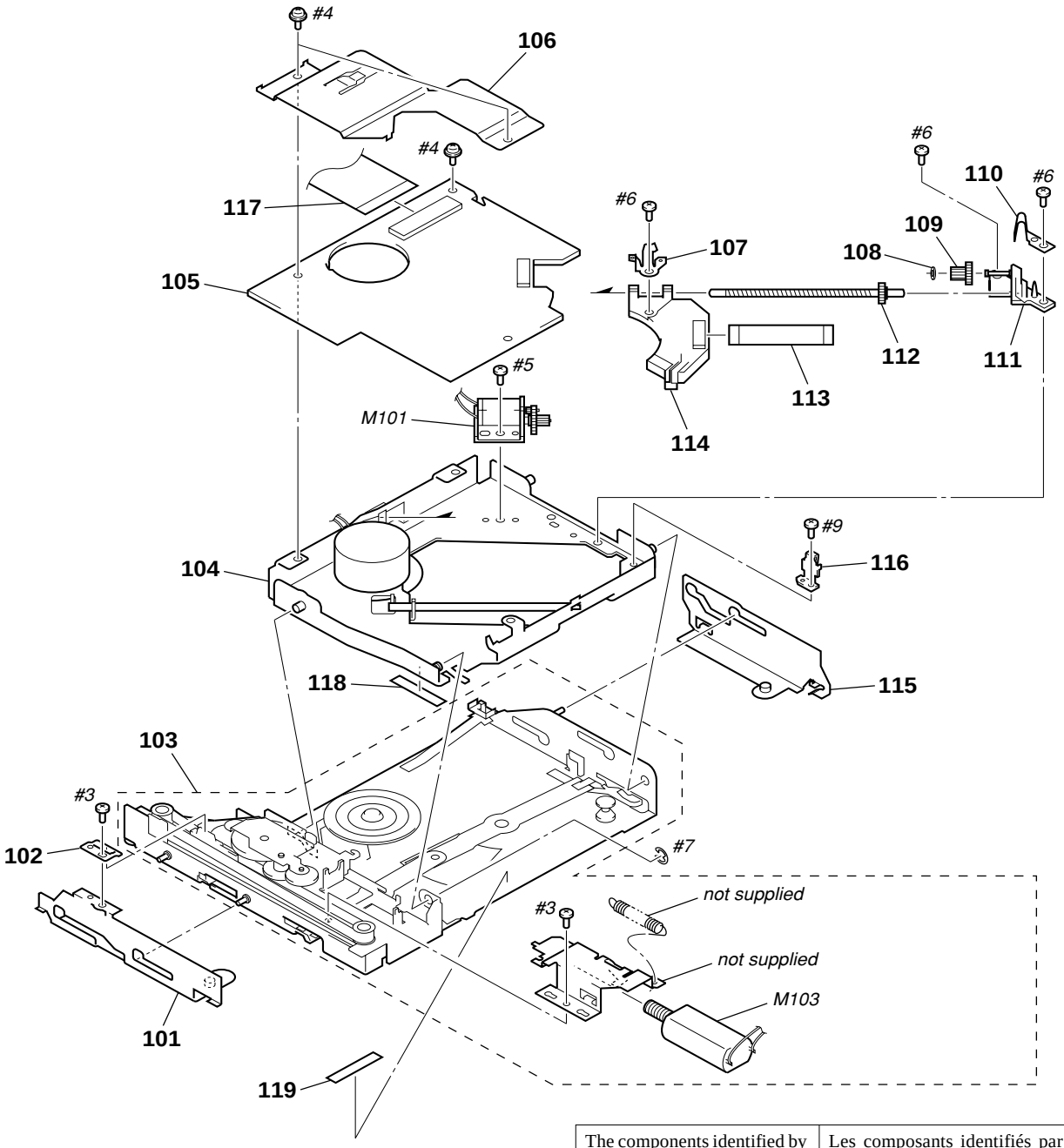
| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| 13 | 3-935-636-11 | SCREW (FP) | |
| 14 | 3-225-810-01 | BUTTON (S) (EJECT) | |
| 15 | 3-225-805-01 | ESCUTCHEON (S) | |
| 16 | 3-376-464-11 | SCREW (+PTT 2.6X6), GROUND POINT | |
| 17 | 1-757-747-11 | CORD (WITH CONNECTOR) (BUS/RCA) | |
| 18 | 1-680-823-11 | JACK FLEXIBLE BOARD | |
| 19 | 1-680-828-11 | JACK BOARD | |
| 20 | 3-233-246-01 | CUSHION (CHASSIS 6T) | |
| 21 | 3-348-750-01 | CUSHION (DAMPER) | |
| 22 | 3-233-248-01 | CUSHION (JACK) | |
| 23 | 3-233-245-01 | SPACER (CASE LOWER) | |
| RV301 | 1-227-137-11 | RES, VAR, SLIDE 10K (ELEVATOR HEIGHT SENSOR) | |

## 6-2. MECHANISM DECK SECTION-1 (MG-276A-159)




| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| 51 | A-3315-334-A | CHASSIS ASSY, MAIN | |
| 52 | 3-048-814-01 | SCREW (M1.7X2.2) | |
| 53 | 3-227-131-01 | BELT (TS) | |
| 54 | 3-973-975-11 | DAMPER, OIL | |
| 55 | 3-935-636-11 | SCREW (FP) | |
| 56 | 3-227-133-01 | BRACKET (MDM) | |
| 57 | 3-227-150-01 | SPRING, TENSION | |
| 58 | 3-701-440-21 | WASHER, 3.5 | |
| M104 | A-3315-337-A | MOTOR ASSY, MD (ELEVATOR) | |

## 6-3. MECHANISM DECK SECTION-2 (MG-276A-159)




| The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified. | Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié. |
|---|---|

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| 101 | X-3380-094-1 | LEVER (CHK. R) ASSY | |
| 102 | 3-227-173-01 | JOINT (CHK) | |
| 103 | A-3315-331-A | CHASSIS (EV) ASSY | |
| 104 | X-3380-644-1 | SERVICE ASSY, CHASSIS (OP) BLOCK | |
| 105 | A-3326-966-A | RF BOARD, COMPLETE | |
| 106 | 3-230-917-01 | HEAT SINK | |
| 107 | 3-227-117-01 | SPRING (SLED), DETENT | |
| 108 | 3-318-136-01 | WASHER, POLYETHYLENE, DIA. 1.2 | |
| 109 | 3-227-120-01 | GEAR (SL2) | |
| 110 | 3-227-118-01 | SPRING (SLED FRONT POINT) | |
| 111 | X-3380-098-1 | BEARING (SLED) ASSY | |
| 112 | A-3315-327-A | SHAFT (SLED FEED) ASSY | |
| 113 | 1-680-824-11 | OP FLEXIBLE BOARD | |
| ⚠114 | 8-820-103-03 | OPTICAL PICK-UP KSS-720A/K1RP | |
| 115 | X-3380-093-1 | LEVER (CHK. L) ASSY | |
| 116 | 3-231-650-01 | SPRING (FOP), LEAF | |
| 117 | 1-680-822-11 | MAIN FLEXIBLE BOARD | |
| 118 | 3-233-757-01 | SPACER (TRAY RETAINER) | |
| 119 | 3-010-230-01 | SPACER (DISC RETAINER L) | |
| M101 | A-3307-854-A | MOTOR COMPLETE ASSY, SLED | |
| M103 | A-3315-325-A | MOTOR ASSY, LE (CHUCKING) | |

JACK MAIN

# SECTION 7
# ELECTRICAL PARTS LIST

NOTE:
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL: Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F: nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service.
  Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u: µ, for example:
  uA. . : µA. . uPA. . : µPA. .
  uPB. . : µPB. . uPC. . : µPC. .
  uPD. . : µPD. .
- CAPACITORS
  uF: µF
- COILS
  uH: µH

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiquens pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

When indicating parts by reference number, please include the board.

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| | 1-680-828-11 | JACK BOARD | | | |
| | | ********** | | | |
| | | < CONNECTOR > | | | |
| CN901 | 1-770-350-21 | CONNECTOR, FPC 13P | | | |
| | | < FERRITE BEAD > | | | |
| FB901 | 1-414-760-21 | FERRITE | 0uH | | |
| FB902 | 1-414-760-21 | FERRITE | 0uH | | |
| FB903 | 1-414-760-21 | FERRITE | 0uH | | |
| | | < CHIP FUSE > | | | |
| IC901 | 1-576-437-21 | FUSE, CHIP | | | |
| ********** | | | | | |
| | A-3326-968-A | MAIN BOARD, COMPLETE | | | |
| | | ********** | | | |
| | | < CAPACITOR > | | | |
| C201 | 1-162-964-11 | CERAMIC CHIP | 0.001uF | 10% | 50V |
| C202 | 1-162-968-11 | CERAMIC CHIP | 0.0047uF | 10% | 50V |
| C203 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C204 | 1-115-466-00 | ELECT | 1000uF | 20% | 16V |
| C205 | 1-126-382-11 | ELECT | 100uF | 20% | 16V |
| C206 | 1-126-382-11 | ELECT | 100uF | 20% | 16V |
| C207 | 1-126-382-11 | ELECT | 100uF | 20% | 6.3V |
| C208 | 1-107-826-11 | CERAMIC CHIP | 0.1uF | 10% | 16V |
| C209 | 1-126-382-11 | ELECT | 100uF | 20% | 6.3V |
| C210 | 1-115-466-00 | ELECT | 1000uF | 20% | 16V |
| C211 | 1-162-974-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C212 | 1-162-974-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C213 | 1-165-112-11 | CERAMIC CHIP | 0.33uF | 20% | 10V |
| C214 | 1-162-974-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C215 | 1-162-974-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C216 | 1-162-974-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C217 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C301 | 1-162-974-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C302 | 1-162-974-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C303 | 1-124-233-11 | ELECT | 10uF | 20% | 16V |
| C304 | 1-162-974-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C305 | 1-125-837-11 | CERAMIC CHIP | 1uF | 10% | 6.3V |
| C306 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C307 | 1-162-974-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C308 | 1-162-974-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C401 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C402 | 1-162-974-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C403 | 1-162-966-11 | CERAMIC CHIP | 0.0022uF | 10% | 50V |
| C404 | 1-248-499-11 | ELECT | 220uF | 20% | 16V |
| C405 | 1-248-499-11 | ELECT | 220uF | 20% | 16V |
| C407 | 1-165-176-11 | CERAMIC CHIP | 0.047uF | 10% | 16V |
| C408 | 1-162-965-11 | CERAMIC CHIP | 0.0015uF | 10% | 50V |
| C410 | 1-164-230-11 | CERAMIC CHIP | 220PF | 5% | 50V |
| C411 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C412 | 1-125-891-11 | CERAMIC CHIP | 0.47uF | 10% | 10V |
| C413 | 1-164-230-11 | CERAMIC CHIP | 220PF | 5% | 50V |
| C414 | 1-107-826-11 | CERAMIC CHIP | 0.1uF | 10% | 16V |
| C415 | 1-164-230-11 | CERAMIC CHIP | 220PF | 5% | 50V |
| C416 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C501 | 1-164-217-11 | CERAMIC CHIP | 150PF | 5% | 50V |
| C502 | 1-164-217-11 | CERAMIC CHIP | 150PF | 5% | 50V |
| C503 | 1-162-964-11 | CERAMIC CHIP | 0.001uF | 10% | 50V |
| C504 | 1-162-964-11 | CERAMIC CHIP | 0.001uF | 10% | 50V |
| C505 | 1-164-230-11 | CERAMIC CHIP | 220PF | 5% | 50V |
| C506 | 1-164-230-11 | CERAMIC CHIP | 220PF | 5% | 50V |
| C508 | 1-126-779-61 | ELECT | 47uF | 20% | 4V |
| C509 | 1-126-513-11 | ELECT | 47uF | 20% | 4V |
| C510 | 1-126-513-11 | ELECT | 47uF | 20% | 4V |
| C511 | 1-126-791-11 | ELECT | 10uF | 20% | 16V |
| C512 | 1-126-791-11 | ELECT | 10uF | 20% | 16V |
| C513 | 1-162-927-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C514 | 1-162-927-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C515 | 1-126-779-61 | ELECT | 47uF | 20% | 4V |
| C516 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| | | < CONNECTOR > | | | |
| CN201 | 1-770-350-21 | CONNECTOR, FPC 13P | | | |
| CN202 | 1-793-820-21 | CONNECTOR, FPC 22P | | | |
| | | < DIODE > | | | |
| D201 | 8-719-017-94 | DIODE MA8180-TX | | | |
| D202 | 8-719-017-94 | DIODE MA8180-TX | | | |
| D203 | 8-719-421-24 | DIODE MA8039-H-TX | | | |
| D204 | 8-719-071-34 | DIODE RB521S-30-TE61 | | | |
| D207 | 8-719-422-56 | DIODE MA8056-H-TX | | | |
| D209 | 8-719-988-61 | DIODE 1SS355TE-17 | | | |
| D210 | 8-719-069-56 | DIODE UDZSTE-176.2B | | | |
| D212 | 8-719-071-34 | DIODE RB521S-30-TE61 | | | |

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| D213 | 8-719-071-34 | DIODE RB521S-30-TE61 | | | |
| | | < IC > | | | |
| IC201 | 8-759-829-46 | IC BA8272AFV-E2 | | | |
| IC202 | 8-759-833-13 | IC NJM2395AF08 | | | |
| IC203 | 8-759-358-38 | IC NJM78M05DLA (TE1) | | | |
| IC204 | 8-759-827-97 | IC XC61CN2502PR | | | |
| IC301 | 6-800-420-01 | IC MB90473PFV-G-113-BNDE1 | | | |
| IC302 | 8-759-527-33 | IC LB1930M-TLM | | | |
| IC401 | 8-752-402-31 | IC CXD3017Q | | | |
| IC501 | 8-759-662-11 | IC TLV2362IPWR | | | |
| | | < TRANSISTOR > | | | |
| Q202 | 8-729-230-49 | TRANSISTOR | 2SC2712-YG-TE85L | | |
| Q203 | 8-729-230-49 | TRANSISTOR | 2SC2712-YG-TE85L | | |
| Q205 | 8-729-820-46 | TRANSISTOR | 2SB1202FAST-TL | | |
| Q206 | 8-729-230-49 | TRANSISTOR | 2SC2712-YG-TE85L | | |
| Q301 | 8-729-901-00 | TRANSISTOR | DTC124EKA-T146 | | |
| Q501 | 8-729-028-62 | TRANSISTOR | DTA115EKA-T146 | | |
| Q502 | 8-729-015-39 | TRANSISTOR | UN2226-(TX) | | |
| Q503 | 8-729-015-39 | TRANSISTOR | UN2226-(TX) | | |
| | | < RESISTOR > | | | |
| R201 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R202 | 1-216-813-11 | METAL CHIP | 220 | 5% | 1/16W |
| R203 | 1-216-847-11 | METAL CHIP | 150K | 5% | 1/16W |
| R204 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R205 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R206 | 1-216-846-11 | METAL CHIP | 120K | 5% | 1/16W |
| R207 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/16W |
| R209 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R211 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/16W |
| R301 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R302 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/16W |
| R303 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/16W |
| R305 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/16W |
| R306 | 1-216-797-11 | METAL CHIP | 10 | 5% | 1/16W |
| R307 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R308 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R309 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R401 | 1-216-827-11 | METAL CHIP | 3.3K | 5% | 1/16W |
| R402 | 1-216-827-11 | METAL CHIP | 3.3K | 5% | 1/16W |
| R403 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R404 | 1-216-857-11 | METAL CHIP | 1M | 5% | 1/16W |
| R405 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R406 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/16W |
| R407 | 1-216-839-11 | METAL CHIP | 33K | 5% | 1/16W |
| R408 | 1-216-839-11 | METAL CHIP | 33K | 5% | 1/16W |
| R410 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/16W |
| R412 | 1-216-839-11 | METAL CHIP | 33K | 5% | 1/16W |
| R414 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R501 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R502 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R503 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R504 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R505 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R506 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R507 | 1-216-813-11 | METAL CHIP | 220 | 5% | 1/16W |
| R508 | 1-216-813-11 | METAL CHIP | 220 | 5% | 1/16W |
| R509 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/16W |
| R510 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/16W |
| R511 | 1-219-316-11 | METAL CHIP | 12K | 2% | 1/16W |
| R512 | 1-219-310-11 | METAL CHIP | 6.8K | 2% | 1/16W |
| R513 | 1-219-310-11 | METAL CHIP | 6.8K | 2% | 1/16W |
| R514 | 1-219-316-11 | METAL CHIP | 12K | 2% | 1/16W |
| R515 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R517 | 1-219-310-11 | METAL CHIP | 6.8K | 2% | 1/16W |
| R518 | 1-219-316-11 | METAL CHIP | 12K | 2% | 1/16W |
| R519 | 1-219-310-11 | METAL CHIP | 6.8K | 2% | 1/16W |
| R520 | 1-219-316-11 | METAL CHIP | 12K | 2% | 1/16W |
| R521 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| | | < VARIABLE RESISTOR > | | | |
| RV302 | 1-223-834-11 | RES, ADJ, CARBON 47K | | | |
| | | < SWITCH > | | | |
| SW301 | 1-771-540-11 | SWITCH, PUSH (1KEY) (MAGAZINE DETECT) | | | |
| SW302 | 1-529-566-41 | SWITCH, PUSH (1KEY) (MAGAZINE IN/OUT DETECT) | | | |
| SW303 | 1-692-431-21 | SWITCH, TACTILE (⏏) | | | |
| | | < VIBRATOR > | | | |
| X301 | 1-781-282-11 | VIBRATOR, CERAMIC (4MHz) | | | |
| X401 | 1-760-307-11 | VIBRATOR, CERAMIC (16.9344MHz) | | | |
| ********** | | | | | |
| | A-3326-966-A | RF BOARD, COMPLETE | | | |
| | | ********** | | | |
| | | < CAPACITOR > | | | |
| C107 | 1-126-209-11 | ELECT CHIP | 100uF | 20% | 4V |
| C108 | 1-126-209-11 | ELECT CHIP | 100uF | 20% | 4V |
| C109 | 1-107-826-11 | CERAMIC CHIP | 0.1uF | 10% | 16V |
| C110 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6.3V |
| C111 | 1-107-826-11 | CERAMIC CHIP | 0.1uF | 10% | 16V |
| C112 | 1-107-826-11 | CERAMIC CHIP | 0.1uF | 10% | 16V |
| C113 | 1-107-826-11 | CERAMIC CHIP | 0.1uF | 10% | 16V |
| C114 | 1-107-826-11 | CERAMIC CHIP | 0.1uF | 10% | 16V |
| C115 | 1-126-209-11 | ELECT CHIP | 100uF | 20% | 4V |
| C116 | 1-107-826-11 | CERAMIC CHIP | 0.1uF | 10% | 16V |
| C117 | 1-107-826-11 | CERAMIC CHIP | 0.1uF | 10% | 16V |
| C119 | 1-107-826-11 | CERAMIC CHIP | 0.1uF | 10% | 16V |
| C201 | 1-107-778-11 | ELECT CHIP | 470uF | 20% | 16V |
| C202 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C203 | 1-162-962-11 | CERAMIC CHIP | 470PF | 10% | 50V |
| C204 | 1-162-962-11 | CERAMIC CHIP | 470PF | 10% | 50V |
| C205 | 1-162-962-11 | CERAMIC CHIP | 470PF | 10% | 50V |
| C206 | 1-162-962-11 | CERAMIC CHIP | 470PF | 10% | 50V |
| C208 | 1-164-227-11 | CERAMIC CHIP | 0.022uF | 10% | 25V |
| C209 | 1-164-227-11 | CERAMIC CHIP | 0.022uF | 10% | 25V |
| C211 | 1-164-227-11 | CERAMIC CHIP | 0.022uF | 10% | 25V |
| C217 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C220 | 1-107-725-11 | CERAMIC CHIP | 0.1uF | 10% | 16V |

## RF

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| | | < CONNECTOR > | | | |
| CN101 | 1-793-820-21 | CONNECTOR, FPC 22P | | | |
| CN102 | 1-815-016-21 | CONNECTOR, FFC/FPC (ZIF) 16P | | | |
| | | < IC > | | | |
| IC101 | 8-752-089-74 | IC CXA2581N-T4 | | | |
| IC201 | 8-759-832-99 | IC LA6576L-TE-L | | | |
| | | < TRANSISTOR > | | | |
| Q101 | 8-729-141-48 | TRANSISTOR | 2SB624T1-BV345 | | |
| Q102 | 8-729-901-00 | TRANSISTOR | DTC124EKA-T146 | | |
| | | < RESISTOR > | | | |
| R103 | 1-216-801-11 | METAL CHIP | 22 | 5% | 1/16W |
| R106 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/16W |
| R109 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/16W |
| R110 | 1-216-836-11 | METAL CHIP | 18K | 5% | 1/16W |
| R111 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R112 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R113 | 1-216-835-11 | METAL CHIP | 15K | 5% | 1/16W |
| R116 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/16W |
| R117 | 1-218-859-11 | METAL CHIP | 3.3K | 0.5% | 1/16W |
| R118 | 1-218-879-11 | METAL CHIP | 22K | 0.5% | 1/16W |
| R119 | 1-218-847-11 | METAL CHIP | 1K | 0.5% | 1/16W |
| R120 | 1-216-837-11 | METAL CHIP | 22K | 5% | 1/16W |
| R121 | 1-216-837-11 | METAL CHIP | 22K | 5% | 1/16W |
| R127 | 1-216-801-11 | METAL CHIP | 22 | 5% | 1/16W |
| R128 | 1-218-847-11 | METAL CHIP | 1K | 0.5% | 1/16W |
| R201 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R202 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R203 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R204 | 1-216-839-11 | METAL CHIP | 33K | 5% | 1/16W |
| R205 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R206 | 1-216-839-11 | METAL CHIP | 33K | 5% | 1/16W |
| R207 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R208 | 1-216-839-11 | METAL CHIP | 33K | 5% | 1/16W |
| R209 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R210 | 1-216-839-11 | METAL CHIP | 33K | 5% | 1/16W |
| R211 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R212 | 1-216-843-11 | METAL CHIP | 68K | 5% | 1/16W |
| R213 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R214 | 1-216-842-11 | METAL CHIP | 56K | 5% | 1/16W |
| R215 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R216 | 1-216-839-11 | METAL CHIP | 33K | 5% | 1/16W |
| R218 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R219 | 1-216-839-11 | METAL CHIP | 33K | 5% | 1/16W |
| R220 | 1-216-834-11 | METAL CHIP | 12K | 5% | 1/16W |
| R222 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R223 | 1-216-820-11 | METAL CHIP | 820 | 5% | 1/16W |
| | | < SWITCH > | | | |
| SW101 | 1-571-754-31 | SWITCH, PUSH (1KEY) (LIMIT) | | | |
| SW102 | 1-786-149-21 | SWITCH, PUSH (1KEY) (CHUCKING END DETECT) | | | |

**********

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| | | MISCELLANEOUS | |
| | | ********** | |
| 17 | 1-757-747-11 | CORD (WITH CONNECTOR) (BUS/RCA) | |
| 18 | 1-680-823-11 | JACK FLEXIBLE BOARD | |
| 113 | 1-680-824-11 | OP FLEXIBLE BOARD | |
| ⚠114 | 8-820-103-03 | OPTICAL PICK-UP KSS-720A/K1RP | |
| 117 | 1-680-822-11 | MAIN FLEXIBLE BOARD | |
| M101 | A-3307-854-A | MOTOR COMPLETE ASSY, SLED | |
| M103 | A-3315-325-A | MOTOR ASSY, LE (CHUCKING) | |
| M104 | A-3315-337-A | MOTOR ASSY, MD (ELEVATOR) | |
| RV301 | 1-227-137-11 | RES, VAR, SLIDE 10K (ELEVATOR HEIGHT SENSOR) | |

**********

| | | | |
|---|---|---|---|
| | | ********** | |
| | | HARDWARE LIST | |
| | | ********** | |
| #1 | 7-685-792-09 | SCREW +PTT 2.6X6 (S) | |
| #2 | 7-685-780-09 | SCREW +PTT 2X3 (S) | |
| #3 | 7-627-552-88 | SCREW, PRECISION +P 1.7X2.2 | |
| #4 | 7-628-253-00 | SCREW +PS 2X4 | |
| #5 | 7-627-554-07 | SCREW, PRECISION +P 2X2.2 | |
| #6 | 7-627-553-37 | PRECISION SCREW +P 2X3 TYPE 3 | |
| #7 | 7-624-104-04 | STOP RING 2.0, TYPE -E | |
| #8 | 7-685-851-09 | SCREW, +BVTT 2X4 (S) | |
| #9 | 7-627-554-38 | SCREW, PRECISION +P 2X1.8 TYPE 1 | |

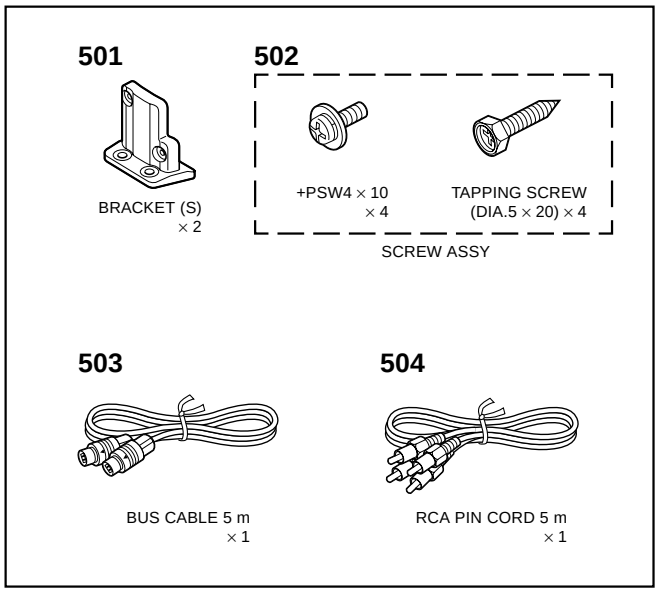
**********

| | | | |
|---|---|---|---|
| | | ACCESSORIES & PACKING MATERIALS | |
| | | ********** | |
| | 3-228-436-11 | MANUAL, INSTRUCTION (ENGLISH, FRENCH, SPANISH, TRADITIONAL CHINESE) | |
| | 3-228-436-21 | MANUAL, INSTRUCTION (ENGLISH, FRENCH, GERMAN, DUTCH, ITALIAN) | |
| | 3-228-436-31 | MANUAL, INSTRUCTION (SPANISH, SWEDISH, PORTUGUESE, POLISH, RUSSIAN, GREEK) | |
| | A-3315-335-A | MAGAZINE (276) ASSY | |

**********

| | |
|---|---|
| The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified. | Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié. |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| | | PARTS FOR INSTALLATION AND CONNECTIONS | |
| | | ********** | |
| 501 | 3-225-809-01 | BRACKET (S) | |
| * 502 | X-3369-824-1 | SCREW ASSY | |
| 503 | 1-590-519-21 | CORD (WITH CONNECTOR) (BUS CABLE 5m) | |
| 504 | 1-590-874-11 | CORD, CONNECTION (RCA PIN CORD 5m) | |



*MEMO*

# CDX-T67

SONY

# SERVICE MANUAL

Ver 1.2 2001.06

*US Model*
*Canadian Model*
*AEP Model*
*UK Model*
*E Model*

# SUPPLEMENT-1

**File this supplement with the service manual.**

**Subject: Change of MAIN/JACK/RF boards. (Suffix-12)**

(ECN-CSA04865/CSB02866)

In this set, RF, MAIN and JACK boards have been changed in the mid-way of production.
Printed wiring boards and schematic diagrams of new type, and changed parts list are described in this supplement-1.
Refer to original service manual for other information.

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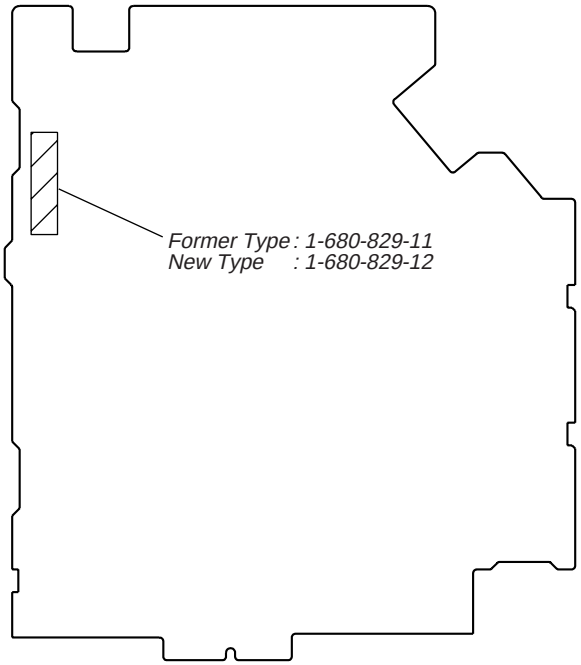
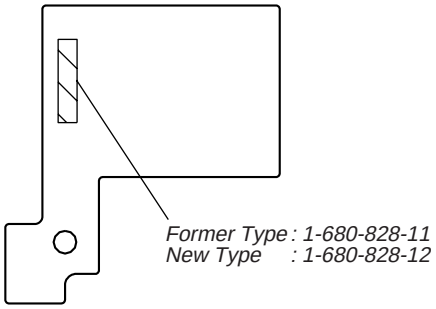
## 1. NEW/FORMER TYPE DISCRIMINATION

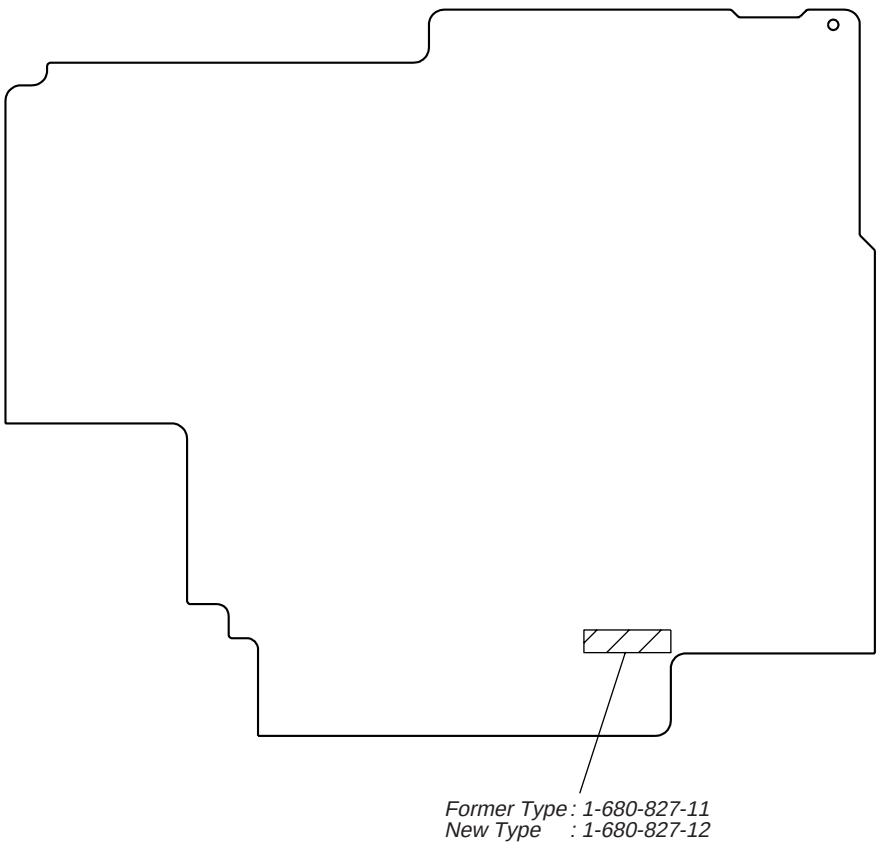
**– RF BOARD (Component Side) –**




**– JACK BOARD (Conductor Side) –**




**– MAIN BOARD (Component Side) –**



# 2. DIAGRAMS

## 2-1. NOTE FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

**Note on Printed Wiring Board:**

- ○——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- △ : internal component.
- ▬ : Pattern from the side which enables seeing.

(The other layers' patterns are not indicated.)

| Caution: | |
|---|---|
| Pattern face side: (Conductor Side) | Parts on the pattern face side seen from the pattern face are indicated. |
| Parts face side: (Component Side) | Parts on the parts face side seen from the parts face are indicated. |

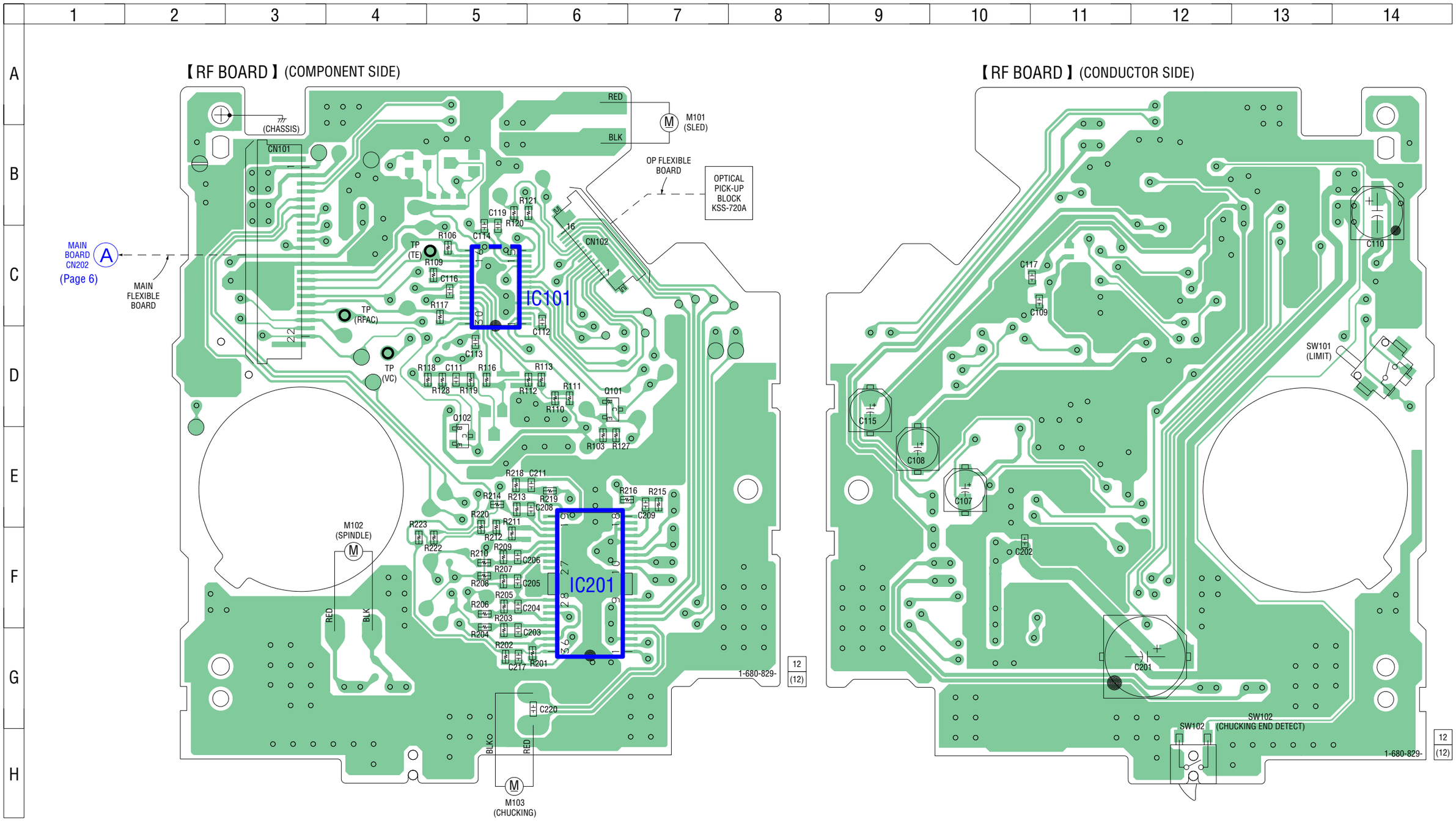
**Note on Schematic Diagram:**

- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- ▭ : panel designation.

| **Note:** | **Note:** |
|---|---|
| The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified. | Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié. |

- ▬ : B+ Line.
- ▭ : adjustment for repair.
- Power voltage is dc 14.4V and fed with regulated dc power supply from CD changer controller.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark : CD PLAY
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.
  Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : CD PLAY

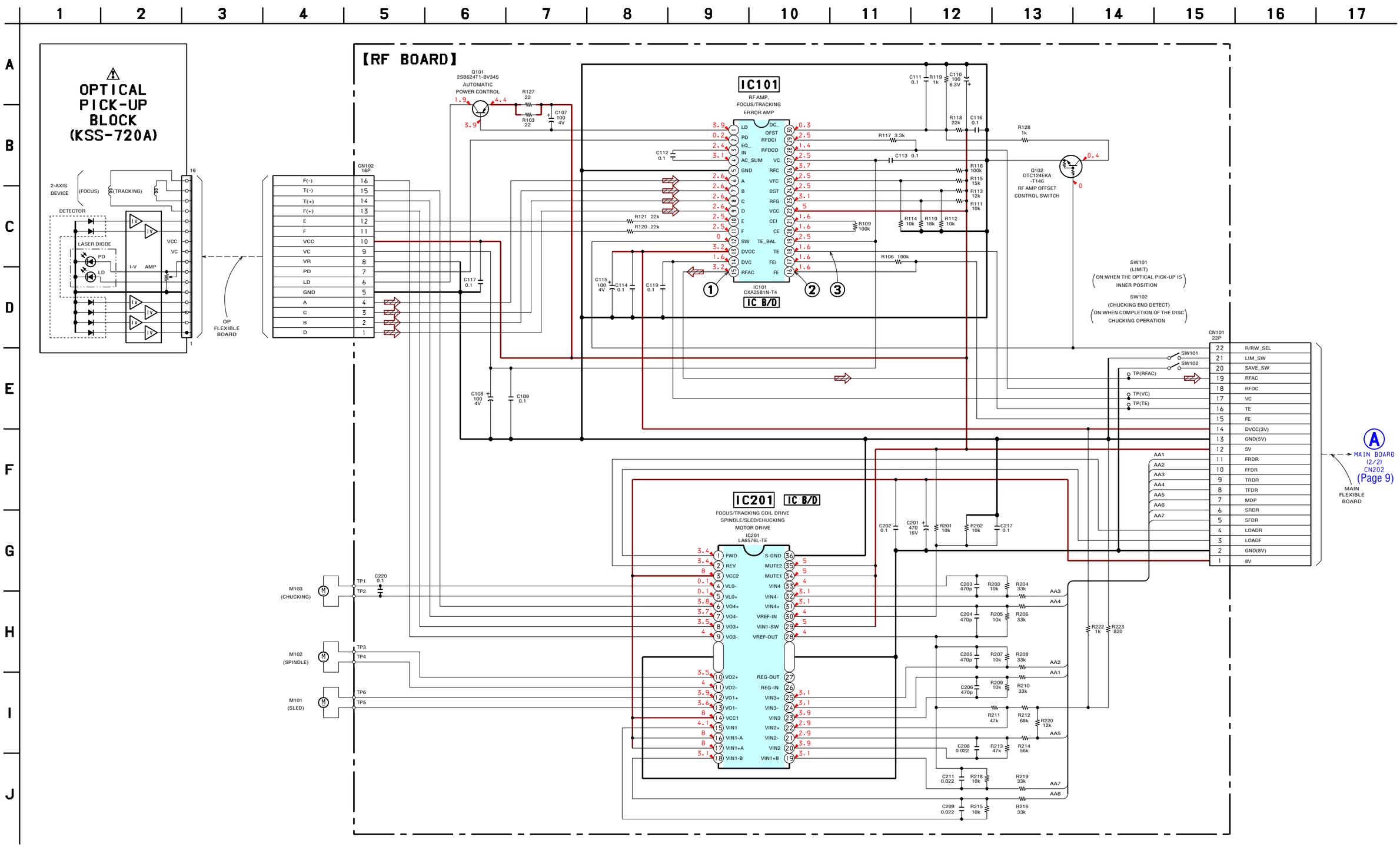
## 2-2. PRINTED WIRING BOARDS – RF Board –




- **Semiconductor Location**

| Ref. No. | Location |
|---|---|
| IC101 | C-5 |
| IC201 | F-6 |
| Q101 | D-6 |
| Q102 | E-5 |

## 2-3. SCHEMATIC DIAGRAM – RF Board –

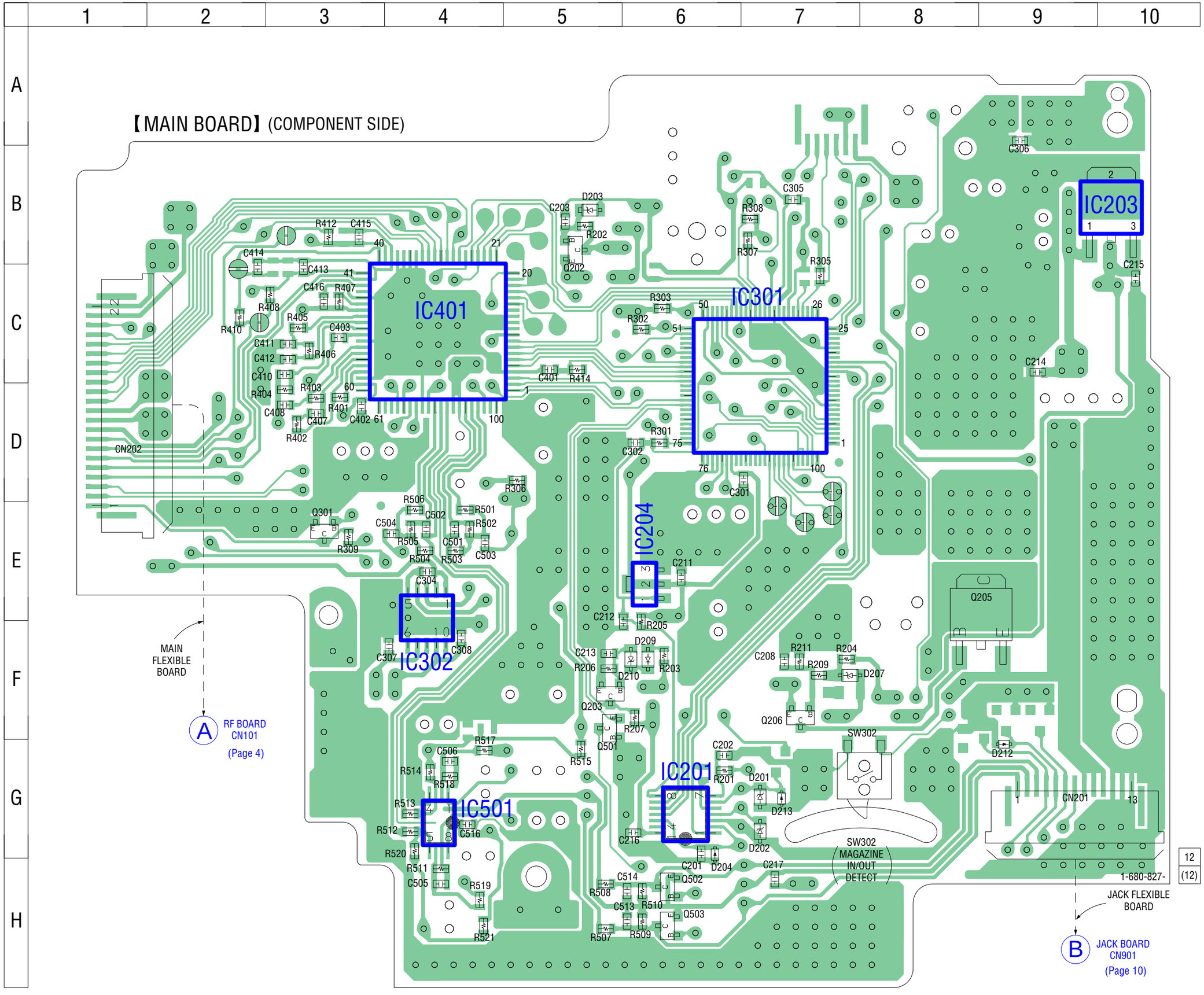



| | |
|---|---|
| The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified. | Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié. |

## 2-4. PRINTED WIRING BOARDS – MAIN Board (Component Side) –

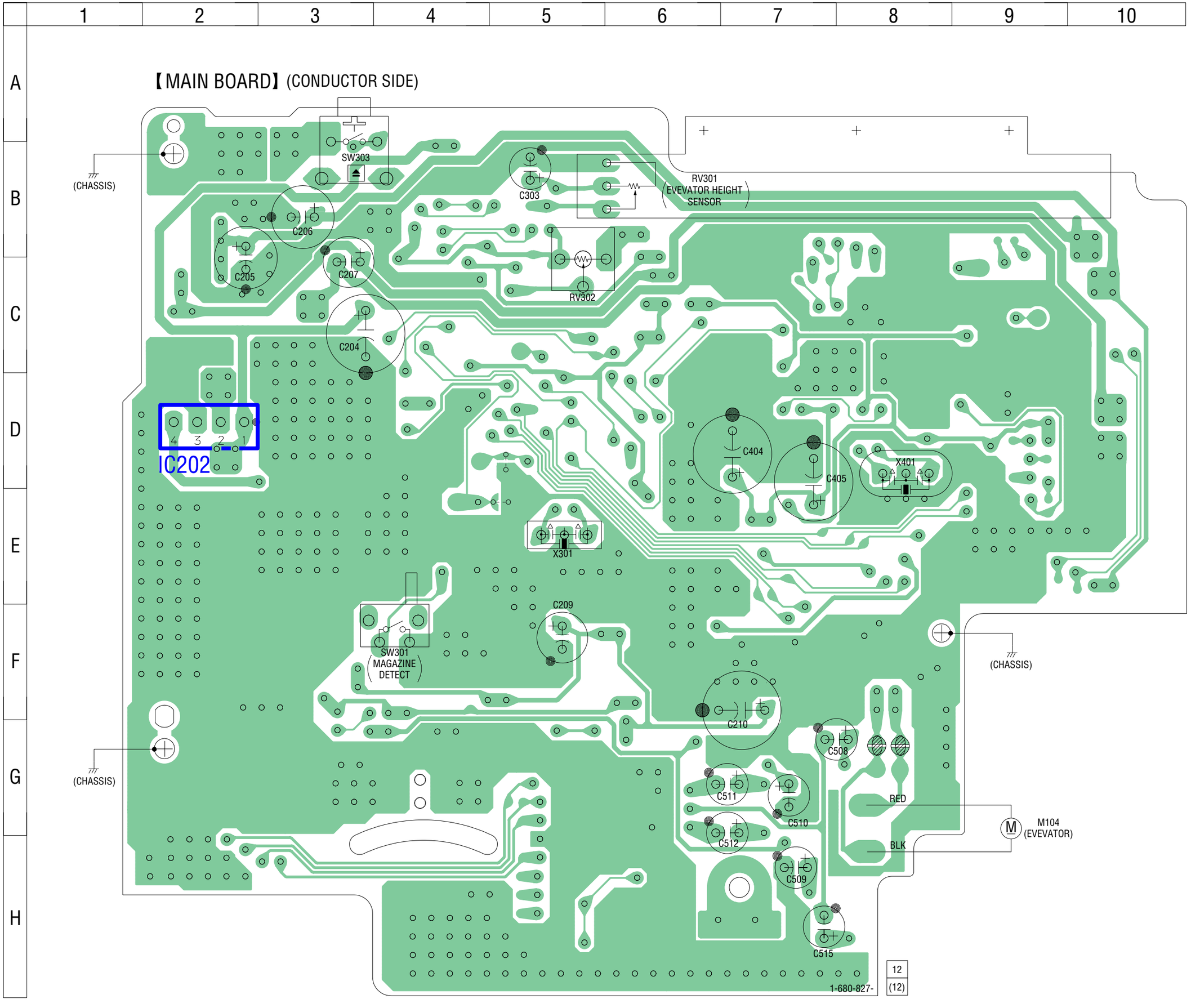
- **Semiconductor Location**

| Ref. No. | Location |
|---|---|
| D201 | G-7 |
| D202 | G-7 |
| D203 | B-5 |
| D204 | G-6 |
| D207 | F-7 |
| D209 | F-6 |
| D210 | F-6 |
| D212 | G-9 |
| D213 | G-7 |
| | |
| IC201 | G-6 |
| IC203 | B-10 |
| IC204 | E-6 |
| IC301 | D-7 |
| IC302 | E-4 |
| IC401 | C-4 |
| IC501 | G-4 |
| | |
| Q202 | B-5 |
| Q203 | F-5 |
| Q205 | E-9 |
| Q206 | F-7 |
| Q301 | E-3 |
| Q501 | F-5 |
| Q502 | H-6 |
| Q503 | H-6 |

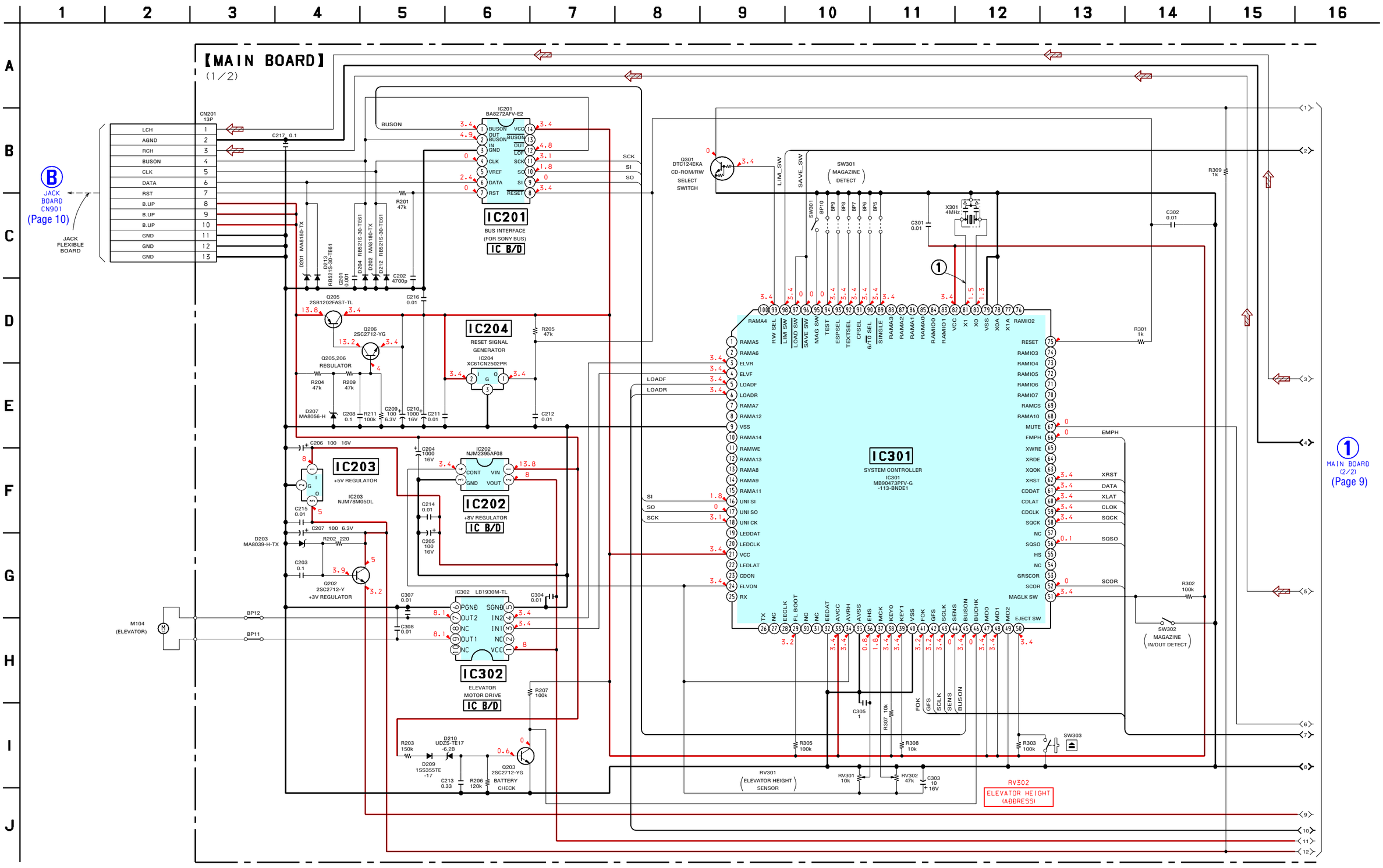


- **Semiconductor Location**

| Ref. No. | Location |
|---|---|
| IC202 | D-2 |

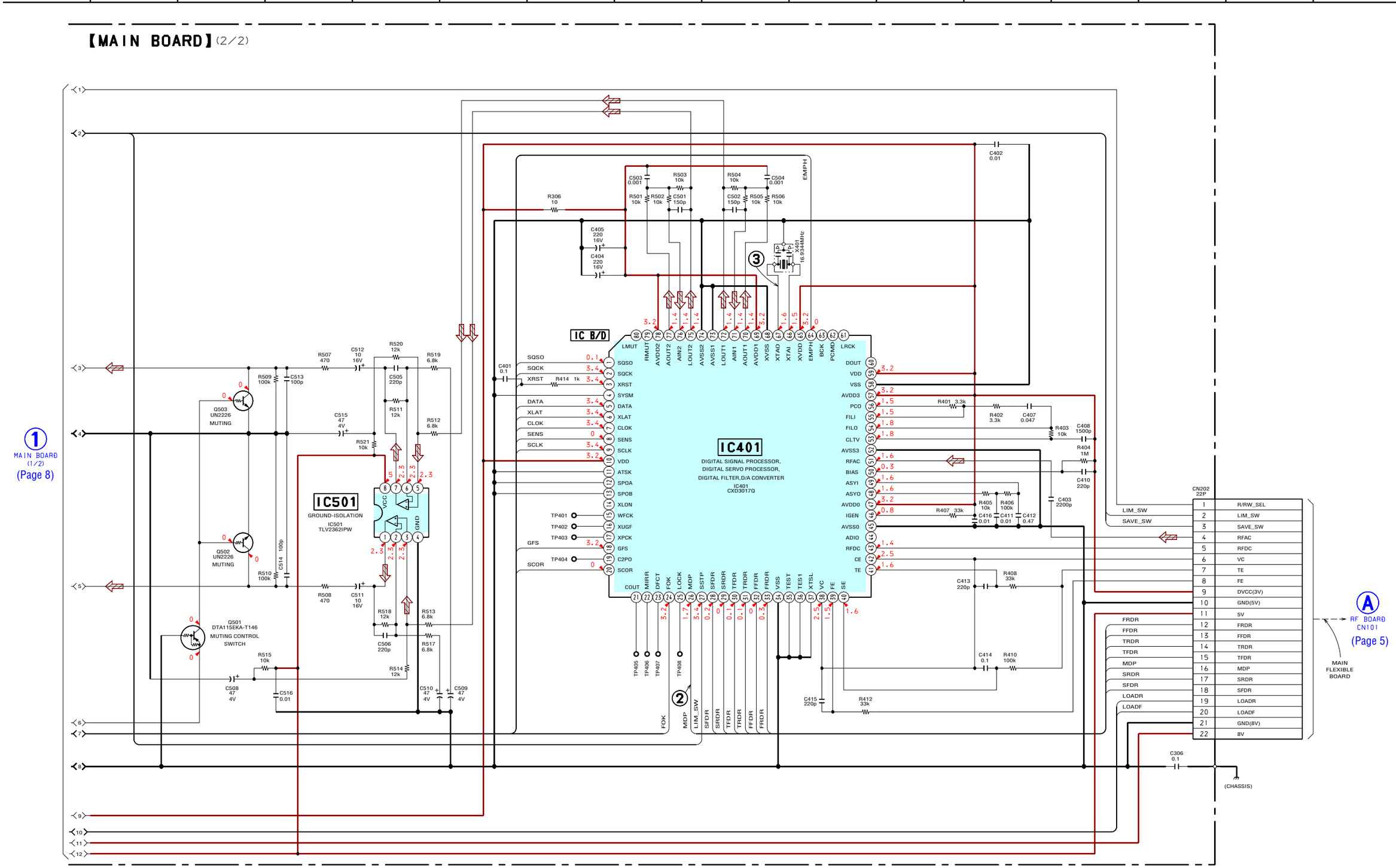


## 2-6. SCHEMATIC DIAGRAM – MAIN Board (1/2) –

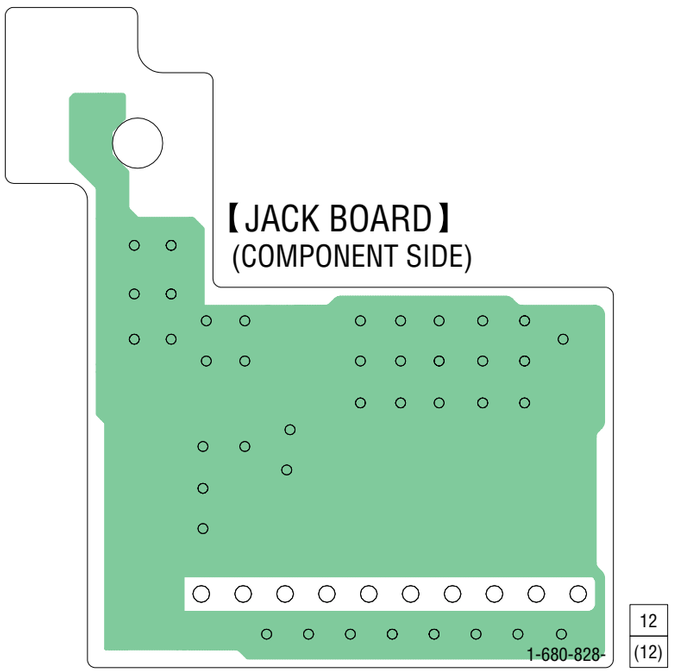


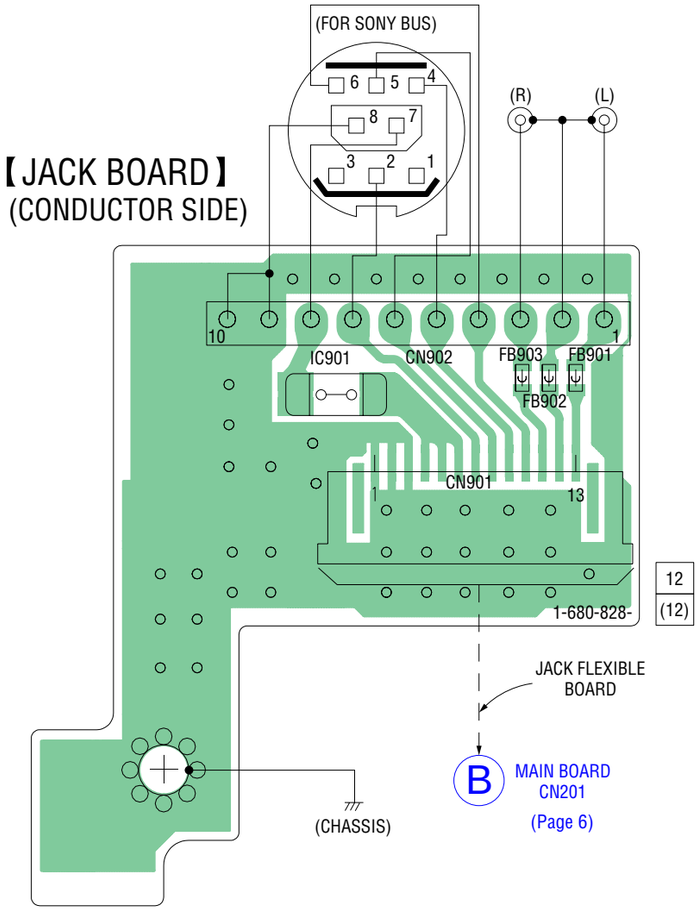
## 2-7. SCHEMATIC DIAGRAM – MAIN Board (2/2) –

【MAIN BOARD】(2/2)

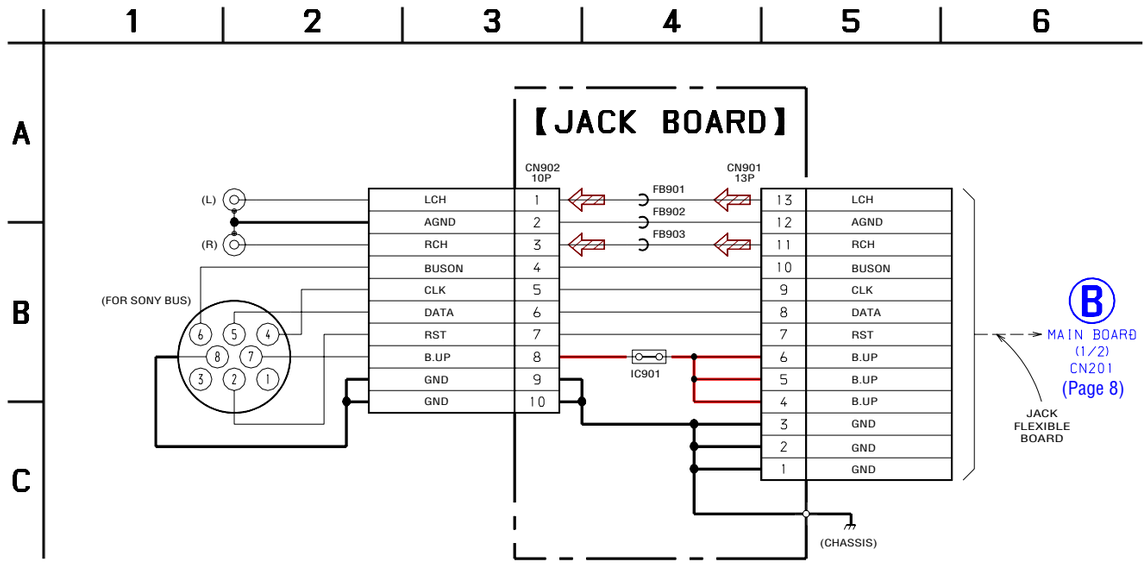


## 2-8. PRINTED WIRING BOARDS – JACK Board –




## 2-9. SCHEMATIC DIAGRAM – JACK Board –



## 3. ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL: Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F: nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service.
  Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u: μ, for example:
  uA. . : μA. . uPA. . : μPA. .
  uPB. . : μPB. . uPC. . : μPC. .
  uPD. . : μPD. .
- CAPACITORS
  uF: μF
- COILS
  uH: μH

When indicating parts by reference number, please include the board.

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| | 1-680-828-12 | JACK BOARD | | | |
| | | ********** | | | |
| | | < CONNECTOR > | | | |
| CN901 | 1-770-350-21 | CONNECTOR, FPC 13P | | | |
| | | < FERRITE BEAD > | | | |
| FB901 | 1-414-760-21 | FERRITE | 0uH | | |
| FB902 | 1-414-760-21 | FERRITE | 0uH | | |
| FB903 | 1-414-760-21 | FERRITE | 0uH | | |
| | | < CHIP FUSE > | | | |
| IC901 | 1-576-437-21 | FUSE, CHIP | | | |
| ********** | | | | | |
| | A-3326-968-A | MAIN BOARD, COMPLETE | | | |
| | | ********** | | | |
| | | < CAPACITOR > | | | |
| C201 | 1-162-964-11 | CERAMIC CHIP | 0.001uF | 10% | 50V |
| C202 | 1-162-968-11 | CERAMIC CHIP | 0.0047uF | 10% | 50V |
| C203 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C204 | 1-115-466-00 | ELECT | 1000uF | 20% | 16V |
| C205 | 1-126-382-11 | ELECT | 100uF | 20% | 16V |
| C206 | 1-126-382-11 | ELECT | 100uF | 20% | 16V |
| C207 | 1-126-382-11 | ELECT | 100uF | 20% | 6.3V |
| C208 | 1-107-826-11 | CERAMIC CHIP | 0.1uF | 10% | 16V |
| C209 | 1-126-382-11 | ELECT | 100uF | 20% | 6.3V |
| C210 | 1-115-466-00 | ELECT | 1000uF | 20% | 16V |
| C211 | 1-162-974-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C212 | 1-162-974-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C213 | 1-165-112-11 | CERAMIC CHIP | 0.33uF | 20% | 10V |
| C214 | 1-162-974-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C215 | 1-162-974-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C216 | 1-162-974-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C217 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C301 | 1-162-974-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C302 | 1-162-974-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C303 | 1-126-791-11 | ELECT | 10uF | 20% | 16V |
| C304 | 1-162-974-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C305 | 1-125-837-11 | CERAMIC CHIP | 1uF | 10% | 6.3V |
| C306 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C307 | 1-162-974-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C308 | 1-162-974-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C401 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C402 | 1-162-974-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C403 | 1-162-966-11 | CERAMIC CHIP | 0.0022uF | 10% | 50V |
| C404 | 1-128-499-11 | ELECT | 220uF | 20% | 16V |
| C405 | 1-128-499-11 | ELECT | 220uF | 20% | 16V |
| C407 | 1-165-176-11 | CERAMIC CHIP | 0.047uF | 10% | 16V |
| C408 | 1-162-965-11 | CERAMIC CHIP | 0.0015uF | 10% | 50V |
| C410 | 1-164-230-11 | CERAMIC CHIP | 220PF | 5% | 50V |
| C411 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C412 | 1-125-891-11 | CERAMIC CHIP | 0.47uF | 10% | 10V |
| C413 | 1-164-230-11 | CERAMIC CHIP | 220PF | 5% | 50V |
| C414 | 1-107-826-11 | CERAMIC CHIP | 0.1uF | 10% | 16V |
| C415 | 1-164-230-11 | CERAMIC CHIP | 220PF | 5% | 50V |
| C416 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C501 | 1-164-217-11 | CERAMIC CHIP | 150PF | 5% | 50V |
| C502 | 1-164-217-11 | CERAMIC CHIP | 150PF | 5% | 50V |
| C503 | 1-162-964-11 | CERAMIC CHIP | 0.001uF | 10% | 50V |
| C504 | 1-162-964-11 | CERAMIC CHIP | 0.001uF | 10% | 50V |
| C505 | 1-164-230-11 | CERAMIC CHIP | 220PF | 5% | 50V |
| C506 | 1-164-230-11 | CERAMIC CHIP | 220PF | 5% | 50V |
| C508 | 1-126-513-11 | ELECT | 47uF | 20% | 4V |
| C509 | 1-126-513-11 | ELECT | 47uF | 20% | 4V |
| C510 | 1-126-513-11 | ELECT | 47uF | 20% | 4V |
| C511 | 1-126-791-11 | ELECT | 10uF | 20% | 16V |
| C512 | 1-126-791-11 | ELECT | 10uF | 20% | 16V |
| C513 | 1-162-927-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C514 | 1-162-927-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C515 | 1-126-513-11 | ELECT | 47uF | 20% | 4V |
| C516 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| | | < CONNECTOR > | | | |
| CN201 | 1-770-350-21 | CONNECTOR, FPC 13P | | | |
| CN202 | 1-793-820-21 | CONNECTOR, FPC 22P | | | |
| | | < DIODE > | | | |
| D201 | 8-719-017-94 | DIODE MA8180-TX | | | |
| D202 | 8-719-017-94 | DIODE MA8180-TX | | | |
| D203 | 8-719-421-24 | DIODE MA8039-H-TX | | | |
| D204 | 8-719-071-34 | DIODE RB521S-30-TE61 | | | |
| D207 | 8-719-977-03 | DIODE DTZ5.6B | | | |
| D209 | 8-719-988-61 | DIODE 1SS355TE-17 | | | |
| D210 | 8-719-069-56 | DIODE UDZSTE-176.2B | | | |
| D212 | 8-719-071-34 | DIODE RB521S-30-TE61 | | | |

# MAIN RF

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| D213 | 8-719-071-34 | DIODE RB521S-30-TE61 | | | |
| | | < IC > | | | |
| IC201 | 8-759-829-46 | IC BA8272AFV-E2 | | | |
| IC202 | 8-759-833-13 | IC NJM2395AF08 | | | |
| IC203 | 8-759-358-38 | IC NJM78M05DLA (TE1) | | | |
| IC204 | 8-759-827-97 | IC XC61CN2502PR | | | |
| IC301 | 6-800-420-01 | IC MB90473PFV-G-113-BNDE1 | | | |
| IC302 | 8-759-527-33 | IC LB1930M-TLM | | | |
| IC401 | 8-752-402-31 | IC CXD3017Q | | | |
| IC501 | 8-759-662-11 | IC TLV2362IPWR | | | |
| | | < TRANSISTOR > | | | |
| Q202 | 8-729-200-13 | TRANSISTOR | 2SC2712-Y | | |
| Q203 | 8-729-230-49 | TRANSISTOR | 2SC2712-YG-TE85L | | |
| Q205 | 8-729-820-46 | TRANSISTOR | 2SB1202FAST-TL | | |
| Q206 | 8-729-230-49 | TRANSISTOR | 2SC2712-YG-TE85L | | |
| Q301 | 8-729-901-00 | TRANSISTOR | DTC124EKA-T146 | | |
| Q501 | 8-729-028-62 | TRANSISTOR | DTA115EKA-T146 | | |
| Q502 | 8-729-015-39 | TRANSISTOR | UN2226-(TX) | | |
| Q503 | 8-729-015-39 | TRANSISTOR | UN2226-(TX) | | |
| | | < RESISTOR > | | | |
| R201 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R202 | 1-216-813-11 | METAL CHIP | 220 | 5% | 1/16W |
| R203 | 1-216-847-11 | METAL CHIP | 150K | 5% | 1/16W |
| R204 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R205 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R206 | 1-216-846-11 | METAL CHIP | 120K | 5% | 1/16W |
| R207 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/16W |
| R209 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R211 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/16W |
| R301 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R302 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/16W |
| R303 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/16W |
| R305 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/16W |
| R306 | 1-216-797-11 | METAL CHIP | 10 | 5% | 1/16W |
| R307 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R308 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R309 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R401 | 1-216-827-11 | METAL CHIP | 3.3K | 5% | 1/16W |
| R402 | 1-216-827-11 | METAL CHIP | 3.3K | 5% | 1/16W |
| R403 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R404 | 1-216-857-11 | METAL CHIP | 1M | 5% | 1/16W |
| R405 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R406 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/16W |
| R407 | 1-216-839-11 | METAL CHIP | 33K | 5% | 1/16W |
| R408 | 1-216-839-11 | METAL CHIP | 33K | 5% | 1/16W |
| R410 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/16W |
| R412 | 1-216-839-11 | METAL CHIP | 33K | 5% | 1/16W |
| R414 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R501 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R502 | 1-218-871-11 | RES-CHIP | 10K | 2% | 1/16W |
| R503 | 1-218-871-11 | RES-CHIP | 10K | 2% | 1/16W |
| R504 | 1-218-871-11 | RES-CHIP | 10K | 2% | 1/16W |
| R505 | 1-218-871-11 | RES-CHIP | 10K | 2% | 1/16W |
| R506 | 1-218-871-11 | RES-CHIP | 10K | 2% | 1/16W |
| R507 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| R508 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R509 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/16W |
| R510 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/16W |
| R511 | 1-219-316-11 | RES-CHIP | 12K | 2% | 1/16W |
| R512 | 1-218-867-11 | RES-CHIP | 6.8K | 2% | 1/16W |
| R513 | 1-218-867-11 | RES-CHIP | 6.8K | 2% | 1/16W |
| R514 | 1-219-316-11 | RES-CHIP | 12K | 2% | 1/16W |
| R515 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R517 | 1-218-867-11 | RES-CHIP | 6.8K | 2% | 1/16W |
| R518 | 1-219-316-11 | RES-CHIP | 12K | 2% | 1/16W |
| R519 | 1-218-867-11 | RES-CHIP | 6.8K | 2% | 1/16W |
| R520 | 1-219-316-11 | RES-CHIP | 12K | 2% | 1/16W |
| R521 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| | | < VARIABLE RESISTOR > | | | |
| RV302 | 1-223-834-11 | RES, ADJ, CARBON 47K | | | |
| | | < SWITCH > | | | |
| SW301 | 1-771-540-11 | SWITCH, PUSH (1KEY) (MAGAZINE DETECT) | | | |
| SW302 | 1-529-566-31 | SWITCH, PUSH (1KEY) (MAGAZINE IN/OUT DETECT) | | | |
| SW303 | 1-692-431-21 | SWITCH, TACTILE (⏏) | | | |
| | | < VIBRATOR > | | | |
| X301 | 1-781-282-11 | VIBRATOR, CERAMIC (4MHz) | | | |
| X401 | 1-760-307-11 | VIBRATOR, CERAMIC (16.9344MHz) | | | |
| ********** | | | | | |
| | A-3326-966-A | RF BOARD, COMPLETE | | | |
| | | ********** | | | |
| | | < CAPACITOR > | | | |
| C107 | 1-126-209-11 | ELECT CHIP | 100uF | 20% | 4V |
| C108 | 1-126-209-11 | ELECT CHIP | 100uF | 20% | 4V |
| C109 | 1-107-826-11 | CERAMIC CHIP | 0.1uF | 10% | 16V |
| C110 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6.3V |
| C111 | 1-107-826-11 | CERAMIC CHIP | 0.1uF | 10% | 16V |
| C112 | 1-107-826-11 | CERAMIC CHIP | 0.1uF | 10% | 16V |
| C113 | 1-107-826-11 | CERAMIC CHIP | 0.1uF | 10% | 16V |
| C114 | 1-107-826-11 | CERAMIC CHIP | 0.1uF | 10% | 16V |
| C115 | 1-126-209-11 | ELECT CHIP | 100uF | 20% | 4V |
| C116 | 1-107-826-11 | CERAMIC CHIP | 0.1uF | 10% | 16V |
| C117 | 1-107-826-11 | CERAMIC CHIP | 0.1uF | 10% | 16V |
| C119 | 1-107-826-11 | CERAMIC CHIP | 0.1uF | 10% | 16V |
| C201 | 1-107-778-11 | ELECT CHIP | 470uF | 20% | 16V |
| C202 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C203 | 1-162-962-11 | CERAMIC CHIP | 470PF | 10% | 50V |
| C204 | 1-162-962-11 | CERAMIC CHIP | 470PF | 10% | 50V |
| C205 | 1-162-962-11 | CERAMIC CHIP | 470PF | 10% | 50V |
| C206 | 1-162-962-11 | CERAMIC CHIP | 470PF | 10% | 50V |
| C208 | 1-164-227-11 | CERAMIC CHIP | 0.022uF | 10% | 25V |
| C209 | 1-164-227-11 | CERAMIC CHIP | 0.022uF | 10% | 25V |
| C211 | 1-164-227-11 | CERAMIC CHIP | 0.022uF | 10% | 25V |
| C217 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C220 | 1-107-725-11 | CERAMIC CHIP | 0.1uF | 10% | 16V |

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| | | < CONNECTOR > | | | |
| CN101 | 1-793-820-21 | CONNECTOR, FPC 22P | | | |
| CN102 | 1-815-016-21 | CONNECTOR, FFC/FPC (ZIF) 16P | | | |
| | | < IC > | | | |
| IC101 | 8-752-089-74 | IC CXA2581N-T4 | | | |
| IC201 | 8-759-832-99 | IC LA6576L-TE-L | | | |
| | | < TRANSISTOR > | | | |
| Q101 | 8-729-141-48 | TRANSISTOR | 2SB624T1-BV345 | | |
| Q102 | 8-729-901-00 | TRANSISTOR | DTC124EKA-T146 | | |
| | | < RESISTOR > | | | |
| R103 | 1-216-801-11 | METAL CHIP | 22 | 5% | 1/16W |
| R106 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/16W |
| R109 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/16W |
| R110 | 1-216-836-11 | METAL CHIP | 18K | 5% | 1/16W |
| R111 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R112 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R113 | 1-216-834-11 | METAL CHIP | 12K | 5% | 1/16W |
| R114 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R115 | 1-216-835-11 | METAL CHIP | 15K | 5% | 1/16W |
| R116 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/16W |
| R117 | 1-218-859-11 | METAL CHIP | 3.3K | 0.5% | 1/16W |
| R118 | 1-218-879-11 | METAL CHIP | 22K | 0.5% | 1/16W |
| R119 | 1-218-847-11 | METAL CHIP | 1K | 0.5% | 1/16W |
| R120 | 1-216-837-11 | METAL CHIP | 22K | 5% | 1/16W |
| R121 | 1-216-837-11 | METAL CHIP | 22K | 5% | 1/16W |
| R127 | 1-216-801-11 | METAL CHIP | 22 | 5% | 1/16W |
| R128 | 1-218-847-11 | METAL CHIP | 1K | 0.5% | 1/16W |
| R201 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R202 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R203 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R204 | 1-216-839-11 | METAL CHIP | 33K | 5% | 1/16W |
| R205 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R206 | 1-216-839-11 | METAL CHIP | 33K | 5% | 1/16W |
| R207 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R208 | 1-216-839-11 | METAL CHIP | 33K | 5% | 1/16W |
| R209 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R210 | 1-216-839-11 | METAL CHIP | 33K | 5% | 1/16W |
| R211 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R212 | 1-216-843-11 | METAL CHIP | 68K | 5% | 1/16W |
| R213 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R214 | 1-216-842-11 | METAL CHIP | 56K | 5% | 1/16W |
| R215 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R216 | 1-216-839-11 | METAL CHIP | 33K | 5% | 1/16W |
| R218 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R219 | 1-216-839-11 | METAL CHIP | 33K | 5% | 1/16W |
| R220 | 1-216-834-11 | METAL CHIP | 12K | 5% | 1/16W |
| R222 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R223 | 1-216-820-11 | METAL CHIP | 820 | 5% | 1/16W |
| | | < SWITCH > | | | |
| SW101 | 1-571-754-31 | SWITCH, PUSH (1KEY) (LIMIT) | | | |
| SW102 | 1-786-149-21 | SWITCH, PUSH (1KEY) (CHUCKING END DETECT) | | | |

*MEMO*

# CDX-T67

SONY

# SERVICE MANUAL

Ver 1.3 2001.09

*US Model*
*Canadian Model*
*AEP Model*
*UK Model*
*E Model*

## SUPPLEMENT-2

**File this supplement with the service manual.**

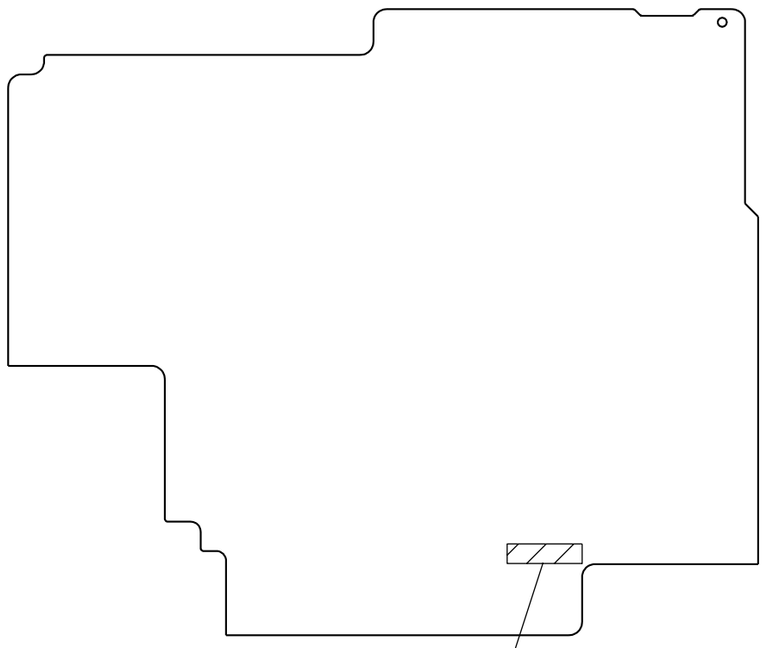
**Subject: Change of MAIN/JACK boards. (Suffix-13)**

(ECN-CSB03047)

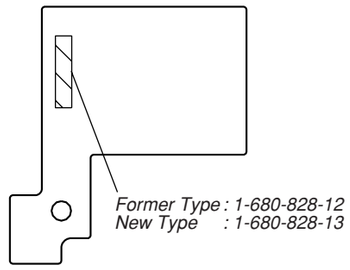
In this set, MAIN and JACK boards have been changed in the midway of production.
Printed wiring boards and schematic diagrams of new type, and changed parts list are described in this supplement-2.
Refer to original service manual for other information.

## • NEW/FORMER TYPE DISCRIMINATION

**– MAIN BOARD (Component Side) –**




**– JACK BOARD (Conductor Side) –**




## • DIAGRAMS
## NOTE FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

**Note on Printed Wiring Board:**
- ○——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- △ : internal component.
- ▬ : Pattern from the side which enables seeing.

(The other layers' patterns are not indicated.)

| Caution: | |
|---|---|
| Pattern face side: (Conductor Side) | Parts on the pattern face side seen from the pattern face are indicated. |
| Parts face side: (Component Side) | Parts on the parts face side seen from the parts face are indicated. |

**Note on Schematic Diagram:**
- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- ▭ : panel designation.

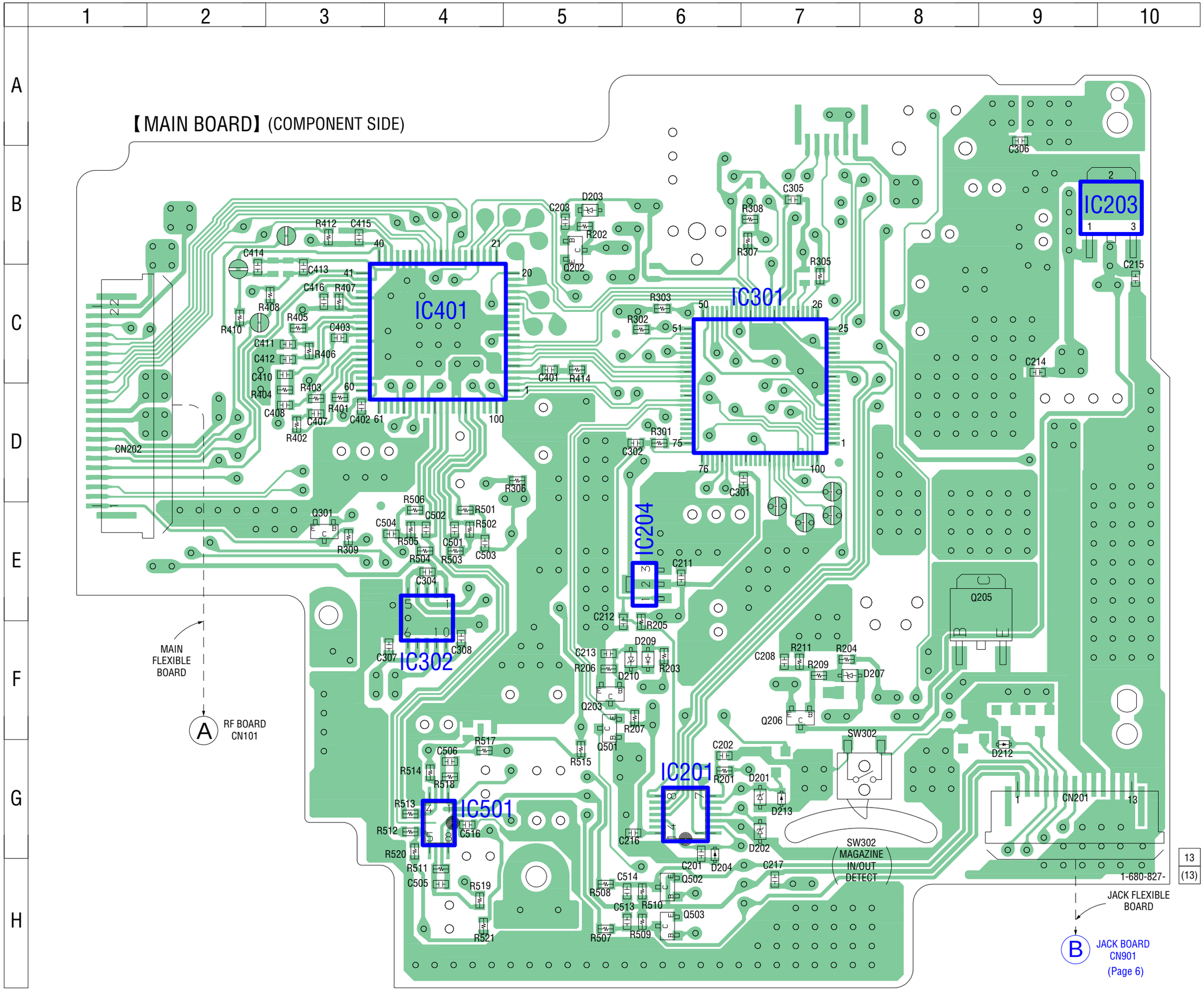
| **Note:** | **Note:** |
|---|---|
| The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified. | Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié. |

- ▬ : B+ Line.
- ▭ : adjustment for repair.
- Power voltage is dc 14.4V and fed with regulated dc power supply from CD changer controller.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark : CD PLAY
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.
  Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : CD PLAY

## PRINTED WIRING BOARDS – MAIN Board (Component Side) –

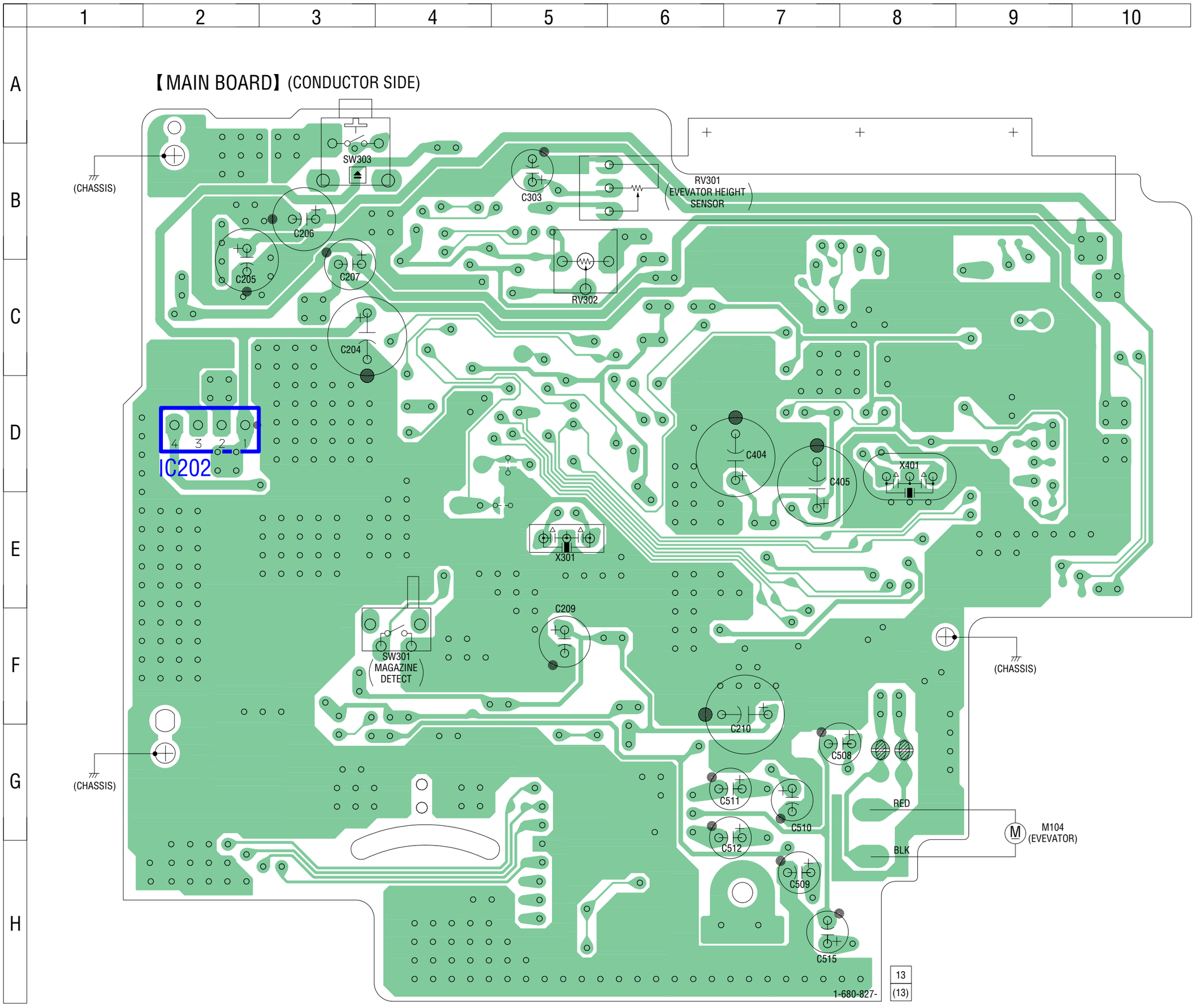
- **Semiconductor Location**

| Ref. No. | Location |
|---|---|
| D201 | G-7 |
| D202 | G-7 |
| D203 | B-5 |
| D204 | G-6 |
| D207 | F-7 |
| D209 | F-6 |
| D210 | F-6 |
| D212 | G-9 |
| D213 | G-7 |
| | |
| IC201 | G-6 |
| IC203 | B-10 |
| IC204 | E-6 |
| IC301 | D-7 |
| IC302 | E-4 |
| IC401 | C-4 |
| IC501 | G-4 |
| | |
| Q202 | B-5 |
| Q203 | F-5 |
| Q205 | E-9 |
| Q206 | F-7 |
| Q301 | E-3 |
| Q501 | F-5 |
| Q502 | H-6 |
| Q503 | H-6 |

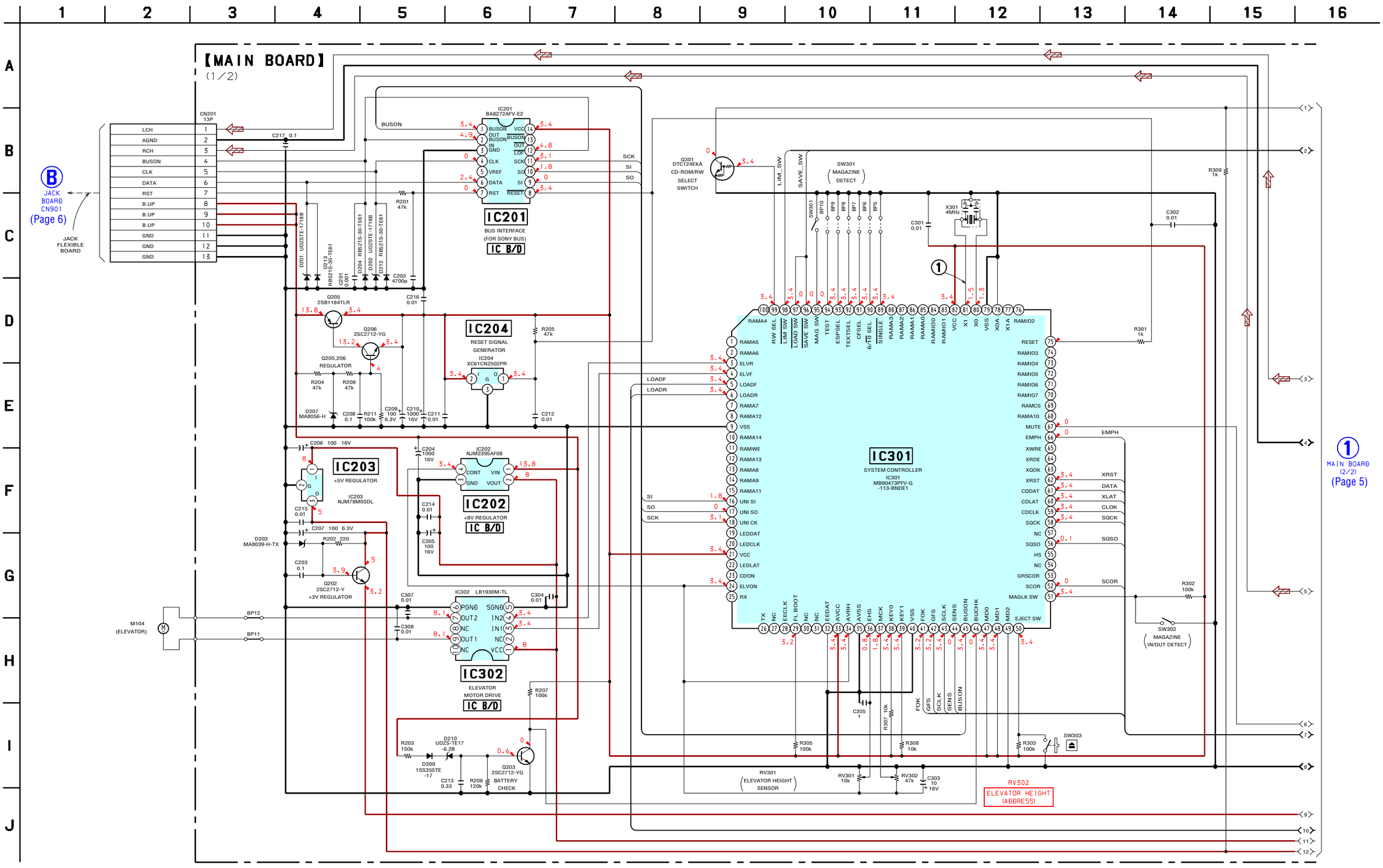


- **Semiconductor Location**

| Ref. No. | Location |
|---|---|
| IC202 | D-2 |



## SCHEMATIC DIAGRAM – MAIN Board (1/2) –



SCHEMATIC DIAGRAM – MAIN Board (2/2) –

【MAIN BOARD】(2/2)

IC401
DIGITAL SIGNAL PROCESSOR,
DIGITAL SERVO PROCESSOR,
DIGITAL FILTER,D/A CONVERTER
IC401
CXD3017Q

IC501
GROUND-ISOLATION
IC501
TLV2362IPW

IC B/D

Q503 UN2226 MUTING
Q502 UN2226 MUTING
Q501 DTA115EKA-T146 MUTING CONTROL SWITCH

CN202 22P

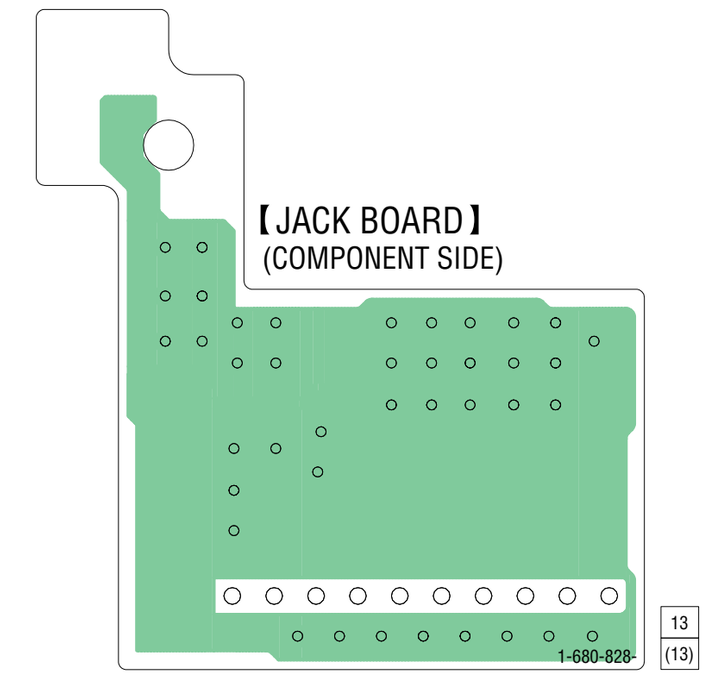
| | |
|---|---|
| 1 | R/RW_SEL |
| 2 | LIM_SW |
| 3 | SAVE_SW |
| 4 | RFAC |
| 5 | RFDC |
| 6 | VC |
| 7 | TE |
| 8 | FE |
| 9 | DVCC(3V) |
| 10 | GND(5V) |
| 11 | 5V |
| 12 | FRDR |
| 13 | FFDR |
| 14 | TRDR |
| 15 | TFDR |
| 16 | MDP |
| 17 | SRDR |
| 18 | SFDR |
| 19 | LOADR |
| 20 | LOADF |
| 21 | GND(8V) |
| 22 | 8V |

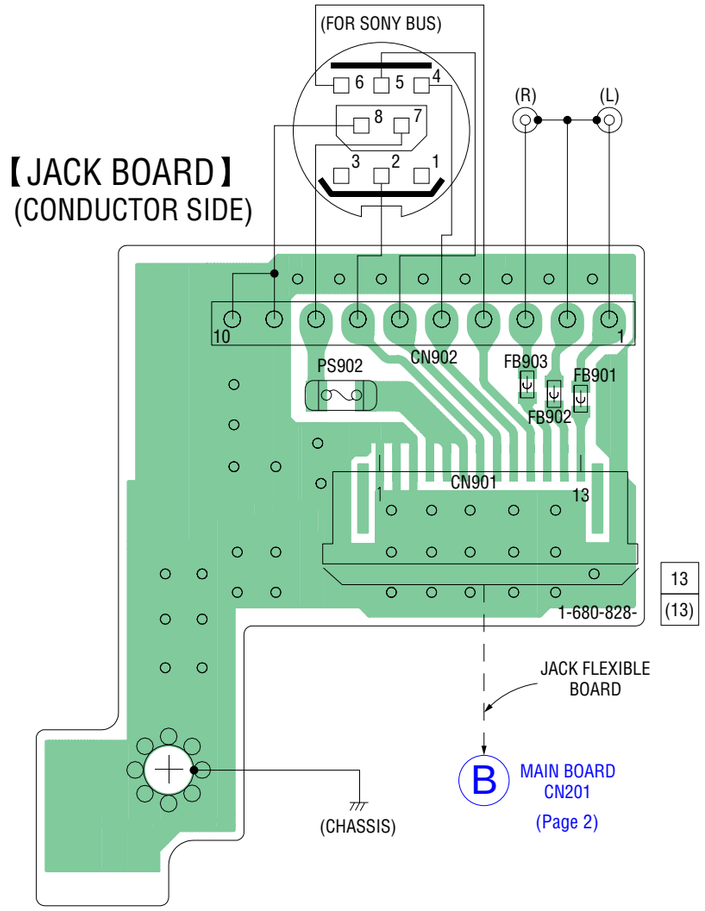
(1) MAIN BOARD (1/2) (Page 4)

(A) RF BOARD CN101

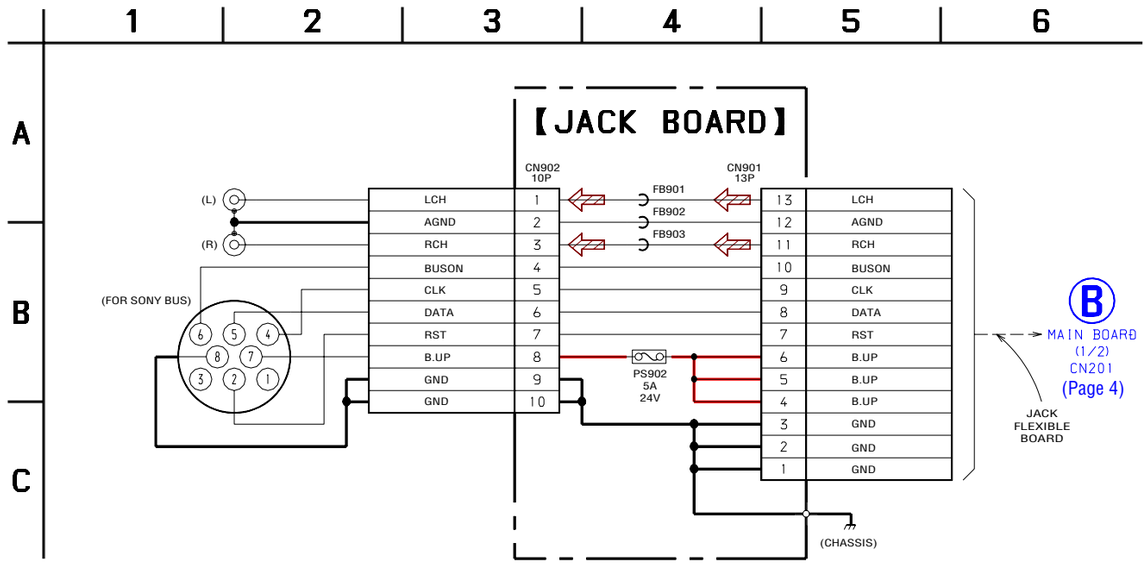
MAIN FLEXIBLE BOARD

## PRINTED WIRING BOARDS – JACK Board –




## SCHEMATIC DIAGRAM – JACK Board –



## • ELECTRICAL PARTS LIST

NOTE:
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL: Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F: nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service.
  Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u: μ, for example:
  uA. . : μA. . uPA. . : μPA. .
  uPB. . : μPB. . uPC. . : μPC. .
  uPD. . : μPD. .
- CAPACITORS
  uF: μF
- COILS
  uH: μH

When indicating parts by reference number, please include the board.

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| | 1-680-828-13 | JACK BOARD | | | |
| | | ********** | | | |
| | | < CONNECTOR > | | | |
| CN901 | 1-770-350-21 | CONNECTOR, FPC 13P | | | |
| | | < FERRITE BEAD > | | | |
| FB901 | 1-414-760-21 | FERRITE | 0uH | | |
| FB902 | 1-414-760-21 | FERRITE | 0uH | | |
| FB903 | 1-414-760-21 | FERRITE | 0uH | | |
| | | < FUSE > | | | |
| PS902 | 1-576-592-21 | FUSE (SMD) (5A/24V) | | | |
| ********** | | | | | |
| | A-3326-968-A | MAIN BOARD, COMPLETE | | | |
| | | ********** | | | |
| | | < CAPACITOR > | | | |
| C201 | 1-162-964-11 | CERAMIC CHIP | 0.001uF | 10% | 50V |
| C202 | 1-162-968-11 | CERAMIC CHIP | 0.0047uF | 10% | 50V |
| C203 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C204 | 1-115-466-00 | ELECT | 1000uF | 20% | 16V |
| C205 | 1-126-382-11 | ELECT | 100uF | 20% | 16V |
| C206 | 1-126-382-11 | ELECT | 100uF | 20% | 16V |
| C207 | 1-126-382-11 | ELECT | 100uF | 20% | 6.3V |
| C208 | 1-107-826-11 | CERAMIC CHIP | 0.1uF | 10% | 16V |
| C209 | 1-126-382-11 | ELECT | 100uF | 20% | 6.3V |
| C210 | 1-115-466-00 | ELECT | 1000uF | 20% | 16V |
| C211 | 1-162-974-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C212 | 1-162-974-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C213 | 1-128-934-11 | CERAMIC CHIP | 0.33uF | 20% | 10V |
| C214 | 1-162-974-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C215 | 1-162-974-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C216 | 1-162-974-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C217 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C301 | 1-162-974-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C302 | 1-162-974-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C303 | 1-126-791-11 | ELECT | 10uF | 20% | 16V |
| C304 | 1-162-974-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C305 | 1-125-837-11 | CERAMIC CHIP | 1uF | 10% | 6.3V |
| C306 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C307 | 1-162-974-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C308 | 1-162-974-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C401 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C402 | 1-162-974-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C403 | 1-162-966-11 | CERAMIC CHIP | 0.0022uF | 10% | 50V |
| C404 | 1-128-499-11 | ELECT | 220uF | 20% | 16V |
| C405 | 1-128-499-11 | ELECT | 220uF | 20% | 16V |
| C407 | 1-165-176-11 | CERAMIC CHIP | 0.047uF | 10% | 16V |
| C408 | 1-162-965-11 | CERAMIC CHIP | 0.0015uF | 10% | 50V |
| C410 | 1-164-230-11 | CERAMIC CHIP | 220PF | 5% | 50V |
| C411 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C412 | 1-125-891-11 | CERAMIC CHIP | 0.47uF | 10% | 10V |
| C413 | 1-164-230-11 | CERAMIC CHIP | 220PF | 5% | 50V |
| C414 | 1-107-826-11 | CERAMIC CHIP | 0.1uF | 10% | 16V |
| C415 | 1-164-230-11 | CERAMIC CHIP | 220PF | 5% | 50V |
| C416 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C501 | 1-164-217-11 | CERAMIC CHIP | 150PF | 5% | 50V |
| C502 | 1-164-217-11 | CERAMIC CHIP | 150PF | 5% | 50V |
| C503 | 1-162-964-11 | CERAMIC CHIP | 0.001uF | 10% | 50V |
| C504 | 1-162-964-11 | CERAMIC CHIP | 0.001uF | 10% | 50V |
| C505 | 1-162-927-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C506 | 1-162-927-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C508 | 1-126-513-11 | ELECT | 47uF | 20% | 4V |
| C509 | 1-126-513-11 | ELECT | 47uF | 20% | 4V |
| C510 | 1-126-513-11 | ELECT | 47uF | 20% | 4V |
| C511 | 1-126-791-11 | ELECT | 10uF | 20% | 16V |
| C512 | 1-126-791-11 | ELECT | 10uF | 20% | 16V |
| C513 | 1-162-927-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C514 | 1-162-927-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C515 | 1-126-513-11 | ELECT | 47uF | 20% | 4V |
| C516 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| | | < CONNECTOR > | | | |
| CN201 | 1-770-350-21 | CONNECTOR, FPC 13P | | | |
| CN202 | 1-793-820-21 | CONNECTOR, FPC 22P | | | |
| | | < DIODE > | | | |
| D201 | 8-719-083-66 | DIODE UDZSTB-1718B | | | |
| D202 | 8-719-083-66 | DIODE UDZSTB-1718B | | | |
| D203 | 8-719-421-24 | DIODE MA8039-H-TX | | | |
| D204 | 8-719-071-34 | DIODE RB521S-30-TE61 | | | |
| D207 | 8-719-977-03 | DIODE DTZ5.6B | | | |
| D209 | 8-719-988-61 | DIODE 1SS355TE-17 | | | |
| D210 | 8-719-069-56 | DIODE UDZSTE-176.2B | | | |
| D212 | 8-719-071-34 | DIODE RB521S-30-TE61 | | | |

# MAIN

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| D213 | 8-719-071-34 | DIODE RB521S-30-TE61 | | | |
| | | < IC > | | | |
| IC201 | 8-759-829-46 | IC BA8272AFV-E2 | | | |
| IC202 | 8-759-833-13 | IC NJM2395AF08 | | | |
| IC203 | 8-759-358-38 | IC NJM78M05DLA (TE1) | | | |
| IC204 | 8-759-827-97 | IC XC61CN2502PR | | | |
| IC301 | 6-800-420-01 | IC MB90473PFV-G-113-BNDE1 | | | |
| IC302 | 8-759-527-33 | IC LB1930M-TLM | | | |
| IC401 | 8-752-402-31 | IC CXD3017Q | | | |
| IC501 | 8-759-662-11 | IC TLV2362IPWR | | | |
| | | < TRANSISTOR > | | | |
| Q202 | 8-729-200-13 | TRANSISTOR | 2SC2712-Y | | |
| Q203 | 8-729-230-49 | TRANSISTOR | 2SC2712-YG-TE85L | | |
| Q205 | 8-729-922-47 | TRANSISTOR | 2SB1184-TLR | | |
| Q206 | 8-729-230-49 | TRANSISTOR | 2SC2712-YG-TE85L | | |
| Q301 | 8-729-901-00 | TRANSISTOR | DTC124EKA-T146 | | |
| Q501 | 8-729-028-62 | TRANSISTOR | DTA115EKA-T146 | | |
| Q502 | 8-729-015-39 | TRANSISTOR | UN2226-(TX) | | |
| Q503 | 8-729-015-39 | TRANSISTOR | UN2226-(TX) | | |
| | | < RESISTOR > | | | |
| R201 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R202 | 1-216-813-11 | METAL CHIP | 220 | 5% | 1/16W |
| R203 | 1-216-847-11 | METAL CHIP | 150K | 5% | 1/16W |
| R204 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R205 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R206 | 1-216-846-11 | METAL CHIP | 120K | 5% | 1/16W |
| R207 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/16W |
| R209 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R211 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/16W |
| R301 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R302 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/16W |
| R303 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/16W |
| R305 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/16W |
| R306 | 1-216-797-11 | METAL CHIP | 10 | 5% | 1/16W |
| R307 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R308 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R309 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R401 | 1-216-827-11 | METAL CHIP | 3.3K | 5% | 1/16W |
| R402 | 1-216-827-11 | METAL CHIP | 3.3K | 5% | 1/16W |
| R403 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R404 | 1-216-857-11 | METAL CHIP | 1M | 5% | 1/16W |
| R405 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R406 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/16W |
| R407 | 1-216-839-11 | METAL CHIP | 33K | 5% | 1/16W |
| R408 | 1-216-839-11 | METAL CHIP | 33K | 5% | 1/16W |
| R410 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/16W |
| R412 | 1-216-839-11 | METAL CHIP | 33K | 5% | 1/16W |
| R414 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R501 | 1-218-871-11 | RES-CHIP | 10K | 2% | 1/16W |
| R502 | 1-218-871-11 | RES-CHIP | 10K | 2% | 1/16W |
| R503 | 1-218-871-11 | RES-CHIP | 10K | 2% | 1/16W |
| R504 | 1-218-871-11 | RES-CHIP | 10K | 2% | 1/16W |
| R505 | 1-218-871-11 | RES-CHIP | 10K | 2% | 1/16W |
| R506 | 1-218-871-11 | RES-CHIP | 10K | 2% | 1/16W |
| R507 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R508 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R509 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/16W |
| R510 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/16W |
| R511 | 1-219-316-11 | RES-CHIP | 12K | 2% | 1/16W |
| R512 | 1-218-867-11 | RES-CHIP | 6.8K | 2% | 1/16W |
| R513 | 1-218-867-11 | RES-CHIP | 6.8K | 2% | 1/16W |
| R514 | 1-219-316-11 | RES-CHIP | 12K | 2% | 1/16W |
| R515 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R517 | 1-218-867-11 | RES-CHIP | 6.8K | 2% | 1/16W |
| R518 | 1-219-316-11 | RES-CHIP | 12K | 2% | 1/16W |
| R519 | 1-218-867-11 | RES-CHIP | 6.8K | 2% | 1/16W |
| R520 | 1-219-316-11 | RES-CHIP | 12K | 2% | 1/16W |
| R521 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| | | < VARIABLE RESISTOR > | | | |
| RV302 | 1-223-834-11 | RES, ADJ, CARBON 47K | | | |
| | | < SWITCH > | | | |
| SW301 | 1-771-540-11 | SWITCH, PUSH (1KEY) (MAGAZINE DETECT) | | | |
| SW302 | 1-529-566-31 | SWITCH, PUSH (1KEY) (MAGAZINE IN/OUT DETECT) | | | |
| SW303 | 1-692-431-21 | SWITCH, TACTILE (⏏) | | | |
| | | < VIBRATOR > | | | |
| X301 | 1-781-282-11 | VIBRATOR, CERAMIC (4MHz) | | | |
| X401 | 1-760-307-11 | VIBRATOR, CERAMIC (16.9344MHz) | | | |

*MEMO*

## REVISION HISTORY

Clicking the version allows you to jump to the revised page.
Also, clicking the version at the upper right on the revised page allows you to jump to the next revised page.

| Ver. | Date | Description of Revision |
|---|---|---|
| 1.0 | 2001.03 | New |
| 1.1 | 2001.05 | Change of Ref. No. for Main flexible board from 11 to 117<br>Addition of SPACER (BUTTON EJECT), CUSHION (DAMPER), CUSHION (JACK), SPACER (CASE LOWER), and CUSHION (CHASSIS 6T)<br>Addition of C220 on RF board<br>Change of C303 on MAIN board<br>Change of Part No. for SW102 on RF board<br>Addition of SPACER (TRAY RETAINER), SPACER (DISC RETAINER L) (ECN-CSB02787/CSB02801/CSB02814/CSB02816/CSB02817/CSB02835) |
| 1.2 | 2001.06 | Change of MAIN/JACK/RF boards (Suffix-12) (ECN-CSA04865/CSB02866) |
| 1.3 | 2001.09 | Change of MAIN/JACK boards (Suffix-13) (ECN-CSB03047) |
| 1.4 | 2002.07 | Correction of Ref. No. 1 and Ref. No. 2 (SPM-02004) |
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